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THE JOURNAL OF HEALTH AND PHYSICAL EDUCATION

FEBRUARY
1938

VOLUME IX
NO. 2

The Division of Health Education . . . Dr. Edna W. Bailey

Liberal Cultural Values of Physical Education . . . . . Frank S. Lloyd

Dance Adventures Abroad . . . Margaret Mantle Stookey

It Has Been Done . . . . . Frederick Rand Rogers

Units of Study on Milk . . . . . Marietta Eichelberger

Health Is Your Greatest Wealth . . . J. Wesley McVicar

Individual Structural Differences in the Orthopedic Examination . . . . . Loraine H. Frost

Care of Gymnasium Floors . . . . . Harold W. Copp

The Alabama Coordinating Plan . . . . . Jessie R. Garrison

Recreation Leadership as a College Course . . . . . Ruth Hill Wood

Elementary Balancing and Tumbling . . . . . Hartley D. Price

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DEPARTMENT OF THE NATIONAL EDUCATION ASSOCIATION

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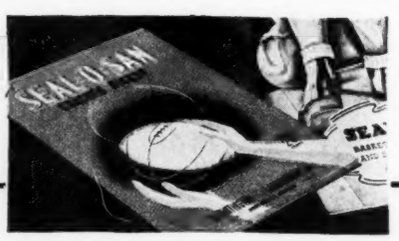

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Health and Physical Education

E. D. MITCHELL, Editor

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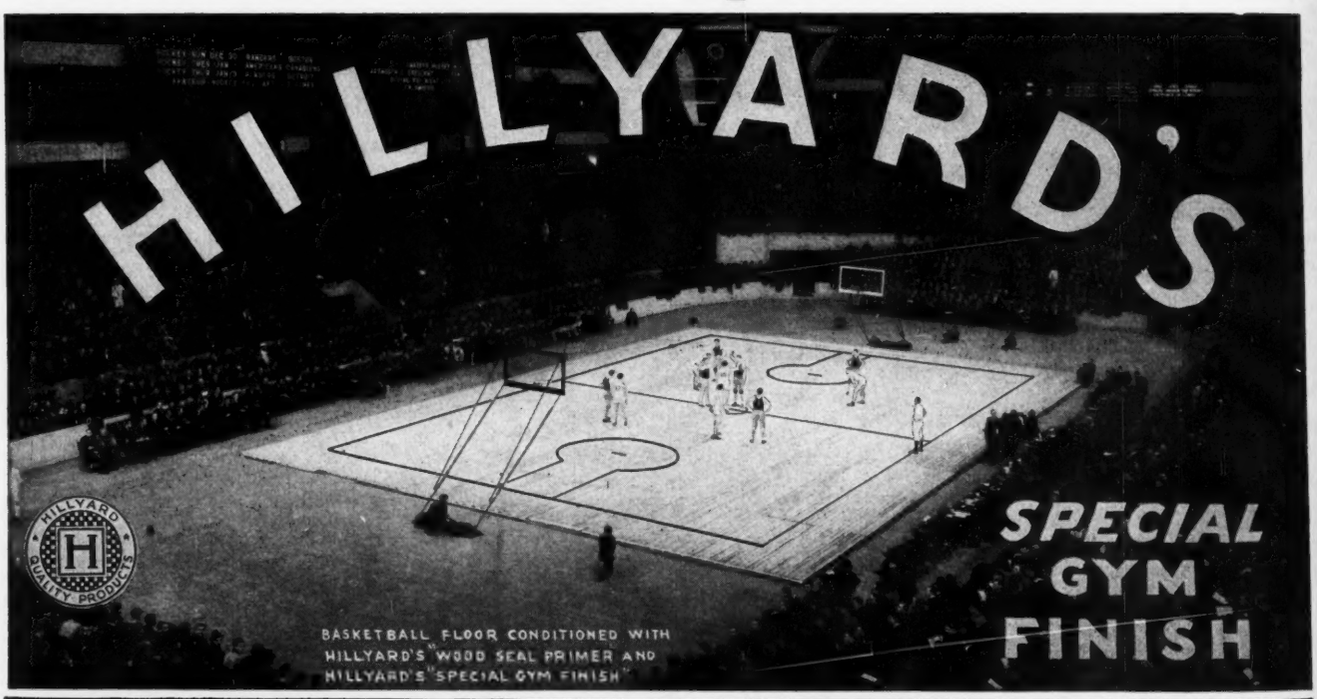
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The Division of Health Education

—*its Program and Membership*

by DR. EDNA W. BAILEY
Chairman, Division of Health Education

THIS Division is one of three coordinate parts of the Association, younger and weaker than the Division of Physical Education, perhaps a little further advanced in its development than is the Division of Recreation.

The purpose of the Division is to give opportunity for coordinated work on health education problems by all the specialists who are professionally concerned with them, and to sponsor through the Association, and in the National Education Association, the findings of the Division with regard to school health policies and curricula. These findings will command respect and receive attention in proportion as the Division membership is inclusive, representative, and experienced.

Division Organization

This consists of a Division Council, elected by the Sections belonging to the Division. The chairman of the Council is a member of the Legislative Council of the Association, and a member-at-large of the Governing Board. The Chairman of each Section is a member of the Legislative Council of the Association. This representation provides opportunity for expression of points of view characterizing the health sections. The function of the Division Council is to give each of the different professional groups easy access to candid and expert criticism of their findings on school health. The physicians and dentists are ready to validate the factual material and discuss the emphasis to be placed on various topics in the health course of study; the health teachers are prepared to explain to the school physician the pedagogic blunders in his plans for an efficient school health service—and so on. From such pooling of resources we should be able to develop statements about school health plans and practices which will be sound, practical, and understandable by parents and by school people generally. We may hope to bring about greater unanimity among experts in this field, thereby securing much better support and understanding from the public. A very simple program, backed by all the professions concerned, will have a better chance of acceptance than any plan favored by one group but criticized unfavorably as to detail by all the others.

Sections affiliated with the Division are five in number, at present. Additional sections may be organized with consent of the Legislative Council, as need and interest develop. Each Section has the right to present at least one program at the annual meeting of the Association; sets its own membership requirements and formulates its program. There are no Section nor Division dues.

Membership in the Sections is open to interested persons who meet the Section requirements and who are members of the Association or of the N.E.A., or of both.

The chief advantage of Section membership is the opportunity offered to make a contribution to school health work in a direct and effective manner; the contacts with fellow workers are stimulating; and there is an unusually good opportunity to publish findings where these will become immediately available to school people generally.

The following statements present the work of each Section very briefly. If you are interested, send in your application to the chairman of the Section in which you wish to work.

I. Section on Education of Teachers

Purpose.—The Teacher Education Section seeks to promote the best possible training of classroom teachers, health educators, and school administrators in health subject matter and in the field of health education methods. The Section seeks to reach its objectives through bringing together the professional workers in this country who are concerned with these particular problems, and through the research and recommendations of special Section committees.

Membership.—Membership is open to all those who are professionally concerned with these problems.

Officers.—The officers of our Section are: (1) Dr. C. E. Turner, Department of Biology and Public Health, Massachusetts Institute of Technology, Chairman; (2) Dr. Anita Laton, University of California, Vice-Chairman; (3) Dr. Mabel Rugen, University of Michigan, Secretary and Treasurer.

Notes on Progress.—The Section Meeting in Atlanta will be devoted to a consideration of the teacher-education problem on the North American continent—the United States, Canada, and Mexico. Speakers will present teacher-education activities of special interest in each of these three countries and the Section will hold a discussion of the work of the Section committee in the teacher-education field.

A publicity committee has been appointed composed

of key people throughout the southeast. These persons are accepting responsibility for calling the meeting to the attention of interested professional workers and administrators.

II. Section on Health Instruction

Purpose.—The desire of the Health Instruction Section to make a contribution in assisting personnel to meet the needs in this field, taking advantage of all available channels.

Membership.—All those engaged in teaching, supervising, administering or rendering advisory service in the field of health instruction are eligible for membership in the Health Instruction section.

Officers.—(1) Eliot V. Graves, Chairman, Supervisor of Physical and Health Education, State Board of Education, Richmond, Virginia; (2) Miss Ethel M. Mealey, Secretary, White Plains, New York.

Notes on Progress.—For the Atlanta program, two Section meetings are planned; Miss Fannie Shaw, Director of Health Education, Georgia, will be Chairman of the elementary program. The business meeting of the section will be combined with the secondary program.

The Organization Committee has recommended the following committee:

1. Program Committee—Major Graves, Chairman, with the help of Miss Shaw and others are planning the program for the Atlanta meeting.
2. Curriculum Study—Dr. Lillian Davis, Baltimore, Chairman. She has already developed a small committee which is at work.
3. Membership Committee—Miss Mealey of White Plains is Chairman.
4. Committee on Information, Methods and Material —Dr. H. F. Kilander, Panzer College, Chairman.

The Organization Committee recognizes a need for a distributing service in the Division, with each section contributing its peculiar service.

For the Summer Meeting of the National Education Association, Miss Ruth Grout, Consultant in School Health Education, Olean, New York, represents this Section in program making.

III. School Nutrition Section

Purpose.—An educational organization pertaining to health should include persons who can present authentic material on nutrition which can be used by the classroom teacher. To supply this need, a School Nutrition Section has been formed as a part of the Division of Health Education of the American Association for Health and Physical Education.

Membership.—Members of the School Nutrition Section must have at least a bachelor's degree from a recognized college or university with a major in foods and nutrition or with additional courses in nutrition and related subjects. A member must also have had at least two years' successful experience as a nutritionist either in teaching, social service, editorial, or allied fields.

Officers.—(1) Carlotta C. Greer, Chairman, Head of the Home Economics Department, John Hay High School, Cleveland, Ohio; (2) Dr. Marietta Eichelberger, Secretary, Director, Nutrition Service, Irradiated Evaporated Milk Institute, Chicago, Illinois; (3) Dr. Lydia J. Roberts, Chairman of the Work Committee, Chairman, Department of Home Economics, The University of Chicago.

Notes on Progress.—An unpublished report of the White House Conference on Child Health and Protection, viz., "Nutrition Service for the School Child," is being revised by Dr. Lydia Roberts, Chairman of the Work Committee of the School Nutrition Section.

Tentative plans have been made to publish in the JOURNAL OF HEALTH AND PHYSICAL EDUCATION a "Question Box." The latter will consist of questions pertaining to nutrition sent in by teachers and answers prepared by an authoritative nutritionist.

IV. Section on School Nursing

Purpose.—The purpose of our section is to interpret school nursing to the educators; to develop an active relationship with other school health personnel and to present standards for guiding administrators in the employment of school nurses.

Membership.—Membership in the section for this year may be held by nurses who belong to the American Nurses Association or the National Organization for Public Health Nurses.

Officers.—(1) Miss Lulu V. Cline, Chairman, 228 So. St. Joseph Street, South Bend, Indiana; (2) Miss Gertrude Cromwell, Vice-Chairman, Health Education and School Nursing, 629 3rd Street, Des Moines, Iowa; (3) Miss Marie Swanson, Secretary, Supervisor of School Nursing, University of the State of New York, Albany, New York.

Notes On Progress.—(1) Business meeting will be held at Atlanta. (2) No program is planned for the Section as such. (3) Participation of school nurses on the Division Program; discussion of the relation of school nursing to the health program.

V. School Medical and Dental Section

Purpose.—To relate the work of school physicians and dentists to the school health program in its more general aspects; to make available to other members of the Division the advice and counsel of members of the Section; and to express the judgment of the Section membership on school health policies through the medium of the Association and of the National Education Association.

Membership.—Those interested in school medical and dental services, who are members of the American Medical Association or its subsidiary societies; or members of the American Dental Association or its affiliated organizations.

Officers.—(1) Don W. Gudakunst, M.D., Dr. P.H., Chairman, Director, School Health Service, Department of Health, Detroit, Michigan; (2) William W. Bauer, M.D., Secretary, Director, Bureau of Health and Public Instruction, American Medical Association, Chicago, Illinois.

Liberal Cultural Values of Physical Education

by FRANK S. LLOYD
Professor of Education
New York University

CONCEPTS of culture vary with different ages, different civilizations, and different groups within the civilization. We like to feel that historically man has advanced culturally with the passing of the ages. Such advance is not a steady stream but rather the gradual ascendancy from the plains to the highest peaks. Foothills of cultural achievement are separated by valleys of retardation yet the height of each succeeding hill increases. A newer civilization picks up and adds to the level of its predecessor; over-systematization, sterilization, and all too frequently war, throw back the cultural progress until again it is revivified and reaches new heights of appreciation and expression.

Culture as Appreciation

Interpretations of sense impressions of all types have been considered cultural. The taste appreciations of food and drink have often been one of the earmarks of a cultivated person. Sound appreciations have, particularly since the development of varieties of musical instruments, been considered a criteria of cultural development. Ability to appreciate the world of which we are a part through vision, particularly appreciations of form and color, have been accepted almost universally as cultural expressions. Kinesthetic and static sense appreciations have less frequently been considered cultural.

Culture has been considered to involve appreciation of all types. To give appropriate meanings to observable phenomena is a characteristic of culture. All too often, however, the areas in which such appreciations may be acceptable have been limited to the arts of color, form, music, and literature. The science of medicine and its necessary appreciations of human beings was not considered cultural in France of the 14th century. The appreciations of phenomena related to science have not always been so accepted and the appreciations of other humans have usually been accepted only as these appreciations have been portrayed through the artist's brush, the sculptor's mallet, the musician's instrument, and the writer's pen.

Culture as Expression

Observable culture is always expressed. All too often, however, these expressions have been limited to those which would be recorded in permanent form and handed down for the critical study of the historian.

Traditionally we have inherited our concept of cultural expression from the late Middle Ages and early Renaissance period. This is summarized in the fine arts of music, color form, literature, and drama. Not all of art, of music or literature have been considered culture. There are some criteria, which we will discuss later, which are used to designate the cultural expressions in fine arts.

Manual expressions of the crafts have been accepted in some areas as culture. The silver- and goldsmith's work of the Middle Ages and late Renaissance stand out as cultural expressions.

Expressions through body movement have been accepted by some groups as cultural. The dance and mimetic warfare of the primitive groups of people and the Greek concept of physical education exemplify perhaps the highest points in the scale of the cultural acceptance of physical education. Lucian characterizing the ideal Athenian youth states that he speaks good Greek and breathes of the Palestra. A Greek youth who lacks physical education could not be called an educated man, "both beautiful and good." Plato in his Republic declares, "I believe that the teachers of both (music and gymnastics) have in view chiefly the improvement of the soul." Perhaps in this statement lies the key to the acceptance by the Greeks of physical education as a cultural medium.

Culture is in part the ability to express, but not all of expression is considered to be cultural. Culture includes the ability to express an idea or concept about almost any area of human experience in *understandable* form and in *good* form. It includes humanistic expressions in social relationships— the ability to express oneself in socially acceptable ways.

One of the oldest incidental non-systematized cultural expressions has been the ability to appreciate other human beings, to live harmoniously and constructively, expressing oneself culturally through others, which ability does not have to be recorded in written or art language to be cultural—it is this humanistic cultural expression with which we are concerned in physical education.

The Nature of Cultural Expression and Appreciation

It has been stated that not all appreciation and not all expressions are considered to be cultural. An historical examination of culture indicates certain characteristic features.

Culture usually implies unusualness; we may speak comparatively of a cultured race, but within the society itself the cultured were a comparatively small group. Culture by its nature tends to particularize when masses absorb a cultural pattern; new patterns are devised to maintain the distinctiveness of the few.

Cultural achievements, at least as expressed in the arts, have usually been considered those which were done for the joy of the task, rather than for material returns. Cultural achievements may then be said to find their motivation in the joy of the task itself rather than the material end; intrinsic rather than ulterior. This implies that sufficient leisure is an essential for cultural development—sufficient freedom of time in which to select and choose those expressions and appreciations which are to us interesting, and satisfying in themselves. Whilst wealth or freedom from economic necessity does not ensure culture, it has tended to provide leisure to become cultural or to support and allow others to become cultured.

What are the Attributes of Culture?

It is obvious that in the consideration of physical education as a liberal cultural opportunity, some attention must be given to the present-day concept of what constitutes a cultured individual. A great deal of literature is available for such a study. It needs to be assimilated and absorbed rather than paraphrased and quoted. The resulting product will obviously be colored by the point of view of the writer and no claim is made for its originality.

1. Perspective.—Culture involves both depth and breadth of appreciation and expression. We can no longer accept as desirable an intensity of understanding which does not see the specialization in its true relationship to other areas of understanding. A cultured person is one who knows the significance of what he does beyond knowing what to do. Eliot states that culture involves a general knowledge of some things and a real mastery of some small portion of human understanding.

True perspective can only come as one has the ability of critical analysis for evaluating the self in terms of other selves. Critical analysis can only come as one can make adequate choices. The cultural status of an individual is determined by the choices which he makes. These choices will be about things or about one's self, about others, and about conceptual ideals. Culture is not a product of pure emulation; it involves the personal selection of behavior, based upon a critical evaluation of the facts, resulting in a discrimination of the desirable from the undesirable.

A self-mastery which ignores the point of view of others is snobbery, which is not a characteristic of culture. Tolerance—the ability to appreciate conflicting viewpoints, to see one's own actions in true perspective—is one of the earmarks of a cultured man. It is contrary to dogma and propaganda, which limit themselves to the presentation of one point of view.

The taste of excellence—the feeling of some achievement excellently performed—characterizes the cultured from the mediocre. It does not involve excellence in all areas of endeavor, but excellence in some one area which will give to the person an ability to appreciate good form (or excellence) in other areas of achievement. Culture can never be limited to mediocrity. It is dynamic and creative—it demands excellence in some areas and a true perspective of this performance as to its worth in the realm of achievement.

2. Self-Realization.—A cultured person moves beyond the dictates of the mob. He is able, when he considers it necessary, to act contrary to the mob. He possesses self-mastery with which comes self-criticism. Not only must he possess the ability of critical analysis which results in a true perspective, but he must be able to act according to his self-evaluation. He is not the creature of his habits, but a utilizer of his habits for more effective living. Culture implies a freedom which can only come as man governs himself and is responsible for his own judgments.

3. Constructive Imagination.—Culture has as its aim the constant development of an effectively living organism in a social setting. It demands that beyond mere sense response there be constructive imagination, the ability to manipulate experiences into new patterns. Culture is self-creative. It is a philosophical moving from the known to the unknown. It carries with it a virility that is, in itself, satisfying.

In order that man may be self-evaluating, critically analytical, tolerant, he must possess a set of values which he uses as the measuring rod of his own behavior. Self-mastery and critical analysis and creative imagination will not of themselves ensure culture. The gallery to which the individual plays will set the standards toward which he is moving. Modern society demands that these standards be socially constructive as well as individually expressive. Ideals of appreciation and self-expression which are not conducive to societal welfare cannot be considered cultural in the modern setting.

4. Intrinsic Values.—True excellence can only come as the task is itself satisfying. The drive of external agents is never sufficient to produce excellence. Culture is essentially amateur. Its value is in the spirit of the doing, not in the doing itself. Martin aptly indicates the difference between a cultural education and informational education when he states that the educated man differs from the uneducated not in that he responds to a different set of situations, but in that he responds with a different set of values.[1]

5. Whole Personality.—Culture is expressed through the whole personality of the individual. It is more than his knowledge, and his excellence in performance. It transcends the ability of self-criticism, to tolerance, judgment, and self-mastery. It is today the way in which all of these fit together into an integrated whole. "Culture represents a complete, and not a simple value," states Spaeth.[2] "It is like a musical chord. Its meaning is not a simple separable element. It is harmony, symmetry, a proportion, a sum of balanced parts."

Traditional Inheritance of Physical Education

Physical education lost the cultural status given to it by the Athenians because of its traditional inheritance.

[1] Everett Dean Martin, *The Meaning of a Liberal Education*, p. 25.
[2] John D. Spaeth, *National Education Association Proceedings*, 1931, p. 402.

These inherited influences, primarily effective during the past two hundred years, may be summarized as follows:

1. The inheritance by the schools of medieval scholasticism with its reverence of the written word.

2. Acceptance on the part of education of the fictitious duality of mind and body, in which the mind was the vehicle of beauty and culture, and the body, the housing within which it resided.

3. The expressive use of physical education for warrior preparation or strong body preparation.

4. The inheritance and stress in the schools of America of the European systems of physical education which were initiated on nationalistic bases, and designed to develop highly efficient bodies and in some cases to break down social barriers which interfered with national integration.

5. The acceptance by the profession of physical education that its main contribution was to body stamina and symmetry.

6. Stress of the preceding era on the importance of the linguistic mechanism both as a means of expression and of inculcating culture.

7. Stress of preceding era on individualism in which culture was frequently assumed to be found in individual expression, irrespective of social relationships.

8. Stress of the past 700 years that cultural expressions were those which could be left in permanent form such as art, sculpture, architecture, and literature.

Evidence That Physical Education Can Be a Cultural Experience

It is necessary to summarize briefly the evidence which has been produced of the nature of culture, in order to establish some measuring rods for a critical evaluation of physical education as a cultural opportunity. No attempt will be made to indicate the cultural values of physical education as a contribution to physiological health.

Appreciations.—Physical education includes individual, dual, and co-acting activities. The appreciations which accrue will vary according to the type of activity. In general it may be said that these activities demand that there accrue interpretations of the inanimate environment, of objects of play, distance, surface, height, hardness or softness, and of movement. The importance of these appreciations is perhaps most apparent in the early stages of the child's development when he is orienting himself to his immediate gross environment. In my opinion the great cultural contributions of physical education are in the realms of humanistic appreciation of the self and of others. Self-evaluation as an acting self overcoming obstacles and reacting to other individuals in the play group is constantly demanded in physical education. It is a laboratory for self-evaluation in a social world. Culture today demands adequate social living. Physical education provides unparalleled opportunities for the appreciation of others and of one's self as a member of a group. Many of the associations demanded in the physical education activities are of an intimate nature. One is compelled by the situations to give meanings (appreciations) to the responses of others. The classroom all too often does not by its nature *demand* this reciprocal appreciation of its individual members.

The need for rules in most games is due to the intimacy and importance of these appreciations and responses. There is no assurance in any situation, whether in physical education or some other group of activities, that the appreciations will be socially desirable. The point to be made here is that so long as one engages in these activities there must accrue interpretations of the actions and feelings of those with whom one plays. The degree to which one develops culturally desirable appreciations of the concepts of cooperative and competitive social relationships will depend upon the atmosphere which is created by the leader around these activities.

Expression.—We judge the cultural status of an individual by his observable behavior. We infer the nature, type, and degree of appreciations from these expressions. We can no longer accept that culture can only be expressed through the media of form and color, music, literature, and drama. Neither can we limit ourselves to a consideration of such expressions recorded in permanent form. The concept of culture must be broad enough to include the humanistic or social relationship expressions which in most cases are not expressed in permanent form and not limited to the four arts. Spaeth has included in his discussions of the means for the realization of culture all the processes that made the individual capable of self-adjustment to the life of society and capable of self-realization within that larger life.[3]

An attempt has been made in the early phases of this paper to select the characteristics of a cultivated person. These characteristics were, you will recall, 1. *Perspective:* the ability to have depth of appreciation and skill with a breadth which would ensure an evaluation of a specialization in its true perspective. 2. *Self-Realization:* the ability to express one's self adequately and through this expression to have a true evaluation of one's self in relationship to other selves. 3. *Constructive Imagination:* that culture involves more than just doing; it passes mediocrity and becomes the ability to use creative imagination in the creation of new patterns. It is essentially progressive in nature and contributing something new to the setting of which it is a part. 4. *Intrinsic:* that the cultured person is one who finds the joy and satisfaction in the doing itself, rather than the ulterior end. True excellence can only be achieved this way. 5. *Integration:* that culture is a personality expression rather than a particular skill or series of skills. It involves harmony, symmetry, proportion, and a sum of the balanced parts. It is an integrated whole; not a series of simple values.

Evidence that Physical Education Has Cultural Values

I would like to attempt, in a very inadequate manner, to indicate the cultural values of physical education on the basis of these criteria. All that can be done in such a brief space of time is to touch pro and con.

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[3] Spaeth, *Loc. cit.*

DANCE ADVENTURES ABROAD

by
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WHEN our party of fifteen left for a tour of Europe, we had decided that our prime interest should be the dance. We would visit notable dance studios, observe the work of the best artists, and would whenever possible seek out small villages where folk dances still persisted and observe, at first hand, music, steps and costumes. To such of our party as danced, these observations would prove most suggestive and enlightening. To those who knew not a gavotte from an "entrechat" such visits would be at least cultural.

Owing to some missed traveling connections, we were unable in Paris to attend a dance demonstration under the direction of Irene Popard, founder and director of the "Association Francaise de Gymnastique Harmonique." Mme. Popard had extended a cordial invitation to our group and we were sorry to miss the opportunity to see her work.

In Munich we visited the Dorothy Volp school of Dalcroze Eurhythmics. The pupils came in, and the lesson began. The directions were in German with an explanation in English. It was an excellent Dalcroze lesson. This was the first time we had seen the instructor do her own accompanying, a custom which is quite prevalent in Europe, especially in schools which teach Dalcroze fundamentals.

The next school we visited in Munich was Lola Fasbender's Gymnastik und Tanzschule on Lenbachplatz. She had a large, adequate studio. The class was large but due to the fact that it was vacation time there were pupils of all ages working together. The work was mostly ballet of a very superior type. After the regular lesson they did for us several German national dances of a rollicking, mischievous type.

The most interesting experience in

"Djeverusa," danced by Nevenka Perko in Berlin at the International Dance Festival during the 1936 Olympic Games.

Left: Hungarian peasants dancing after church at Boldog, Hungary. Notice how the many full skirts swirl up as the boy turns the girl's hips.
Below: Croatian peasants going to market, Zagreb, Jugoslavia, balancing baskets on their heads.

Munich was our visit to the Elizabeth Duncan School on Kaulbachstrasse. From the very first moment it was evident that Miss Duncan radiates a sparkling personality like that which belonged to her famous sister, Isadora. She was very cordial and took us into a long studio done in soft shades of rose with brilliant crystal chandeliers.

The lesson on this occasion was taught by Gertrud Drück, a lovely figure in rose chiffon, who looked as though she had just stepped from an antique Greek vase. The lesson was a truly Isadora Duncan study in completely natural movements. One cannot deny the beauty of the movement, its freedom, simplicity, and grace. At the end of the lesson the students gave a "Hunting Dance." After the lesson we met the pianist, Mr. Merz, and remarked on his marvelous improvisations. He passed it off by saying, "If they did not dance so beautifully I would not play so well." Then he told us a little about the school.

The original Duncan school, founded by Isadora and Elizabeth in 1904 in Berlin, was conducted from 1914 to 1920 near New York, and for the past ten years has been in Salzburg. Now established in Munich, it is open all the year round. The subjects of instruction include a study of the dance according to the Duncan Method, training in the fundamentals of body movement and rhythm, improvisation and composition of the dance forms, lessons in rhythm, and forms of music in folksongs. Lectures are given on music and art history in its relation to the dance. The summer school is held in the beautiful Lake of Starnberg region near Munich.

At Oetz in the Tyrolean Alps the girls watched the Schuhplattler dance every night at the Cafe Tirol, and during the day took lessons from the village youths.[1] This intricate and intriguing dance is even more complicated than it looks. It took several lessons of almost continual slapping to master it. The men of course wear the leather shorts with the fancy suspender effect.

At Zagreb, capital of the Croatian state in Jugoslavia. we were met at the train by the entire Croatian dance group in charge of Nevenka Perko, the dancer, and were given a speech of welcome on the spot. At the hotel we were received with unusual gallantry and attentiveness. The next morning Miss Perko came to see us while we were having breakfast on a vine-covered veranda, brought us a large bouquet of roses, and told of the different events that had been planned for our stay.

That morning we went on a sightseeing trip with Wanda, Baroness of Ozegovic-Samoborvia for a guide. First we went to the Croatian Ethnographical Museum—said to be one of the best in Europe. It contains a large collection of textiles, national musical instruments, wood-cuttings and peasant rooms with Croatian, Slovenian, Serbian, and Dalmatian costumes. The most surprising exhibit was a large collection of Easter eggs decorated in every conceivable way; another was the "Tikvice," oramented pumpkin flasks. Next we went to the market place on Jelacic Square. Peasant women, mostly in red and white with scarfs over their heads, were selling all sorts of Croatian handcraft—laces, cross-stitch embroideries, leather applique, dolls, and sumptuously embroidered peasant costumes.

Next we went to the Jugoslavian Academy of Science and Arts, where we saw an exhibit of the works of the world famous Jugoslavian sculptor Ivan Mestrovic. Between the Croatian National Theater and the

[1] Margaret M. Stookey, "Dolling Up in Europe," JOURNAL OF HEALTH AND PHYSICAL EDUCATION, December, 1936.

Royal University of Jugoslavia we passed the famous "Fountain of Life" —the first work of Mestrovic to be erected in Zagreb. It is one of the most singular pieces of nude sculpture I have ever seen in a public place. We took many pictures of peasants going past with large baskets on their heads.

In the evening the Dance Group which had won such wide recognition at the "International Dance Tournament" in Berlin during the Olympics gave a special program for us. The leader gave a complete explanation of each dance which was immediately translated for us. The group of about twenty-four men and women did a number of Croatian and Slovenian dances, each in a different costume. They began with the very poorest peasant dress and worked up gradually to the splendidly embroidered ones. The choreography was by Nevenka Perko who for years has visited different peasant villages, taken the best steps from each, and created a group of national Croatian dances.

As interludes between the group dances Mercedes Goritz-Pavelic did three solos. The first was a Roumanian dance done in a long full peasant costume. The second was a comic doll-dance done with a bulky big umbrella. The third, a Dalmatian dance, was done in a short costume with one of the captivating Dalmatian hats. The group dances seem to have a numberless variety of steps of surprising difficulty. Some steps are heavy and others fast and light. The intricate foot patterns, not unlike the Spanish heel steps, we recognized later in the "trembling dances" we saw in the villages. The dances all had a lively mood and were done faster and faster until it seemed all would be entirely out of breath.

Peasants at Burg, Spreewald, Germany just ready to dance for a wedding.

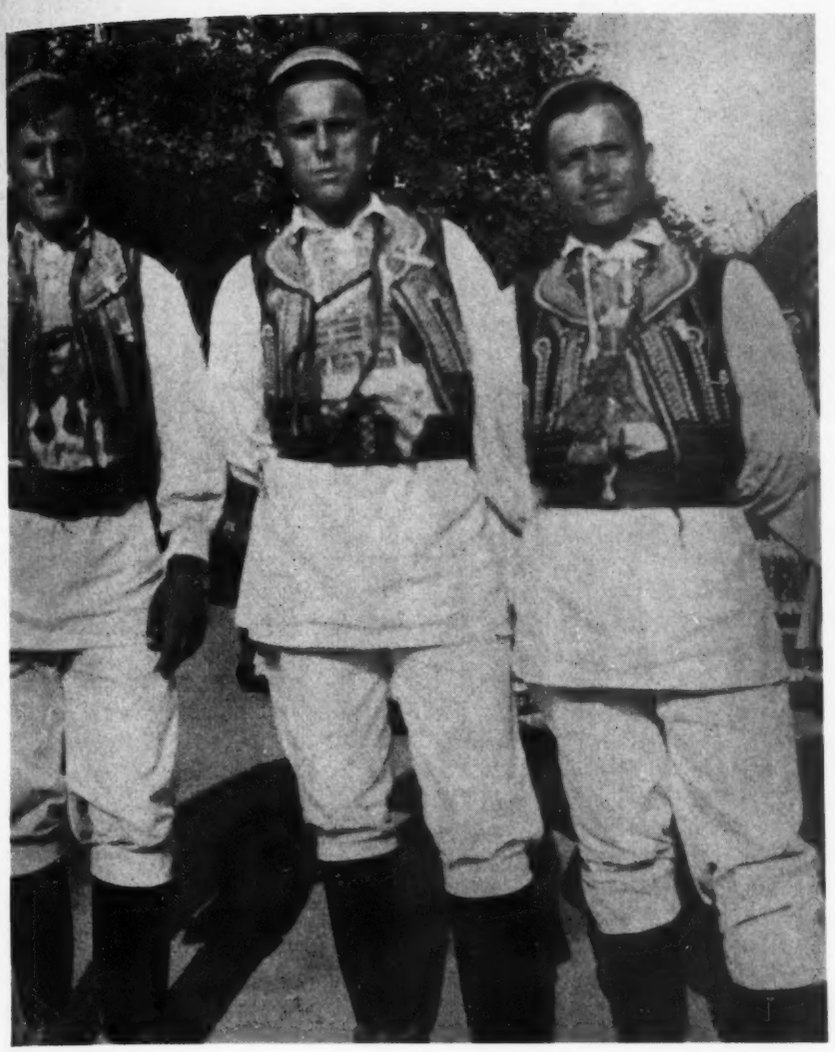
The next morning we went to the "Studio Plesne Umjetnosti" of Mercedes Goritz-Pavelic. She had a display there of a fabulous collection of embroidered costumes. There were very striking patterns showing a rare combination of bright colors, and must have represented years and years of blinding devotion to an exacting ideal. As soon as we finished examining the collection, the recital began. After several ballet and interpretative numbers, Goritz-Pavelic then did for us many national dances. Her Roumanian dances, by far the best, exactly suited her vivacious, dark beauty.

In the afternoon we started in a large, bumpy bus for a long ride to some distant peasant villages. We passed innumerable loads of hay and queer, square, horse-drawn carts filled with peasant families. The peasant houses were very much the "story-book" type with colored designs painted around the doors and windows. Some had a second story with projecting eaves and a balcony. There was always a little fence around the place, and in each yard an ancient well-sweep, a very long, rough pole with a number of rocks tied at one end and a wooden bucket on the other. After riding a long time we saw our first group of peasants dressed in the elaborately embroidered costumes we had seen in Miss Pavelic's studio. They were having a celebration in the village of Treborjevo for two political leaders. By now the road was simply lined with peasants in carts, on bicycles and on foot.

The village was a sight to be remembered for a lifetime. We, the only tourists there, were seeing a tableau of life just as it was centuries ago. We turned down a lane and stopped in front of one of the more pretentious houses. We were invited to examine the inside of the house. It contained just two rooms. The bedroom had one very tall bed piled high with pillows which was used only for guests. I never did find out where the family slept. The other room, a kitchen, had a fireplace and a long table, and the walls hung with small earthenware jars and wooden utensils.

The women's costumes are made of coarse home-spun linen embroidered in very bright red and orange with touches of other warm colors. The dyes are made at home from herbs and fruits. The skirt is accordion plaited, the plaits put in by hand when the garment is damp. Most of the embroidery is a floral design

Croatian peasants at Jezero are proud of their beautiful embroidery and lace. The old women in the background wear black or white scarfs around the head.



Above: Croatian peasant youths in the sort of dress which lends a colorful touch to folk dancing.
Below: Swedish peasant before a peasant home.

which covers the full sleeves, skirt and apron. The sandals—"opamken" —have a ball of red worsted at the top. No costume is complete without the sleeveless, collarless jacket of leather or velvet, cut with a flare over the hips. The men's loose shirt and bloomer-like trousers, usually of white, are further enlivened by a gay red bolero gaily decorated by bright leather applique and fastenings of many small silver buttons. The unmarried girls had their hair down in braids and the matrons had theirs in a small lace cap.

Soon the orchestra arrived and they started dancing the national "kolo" in this small, dusty dooryard. The dances were most curious—different from anything I had ever seen. Miss Perko called them "trembling dances." The boy puts both hands at the girl's waist and she puts both hands around his neck. Then they do fast toe-heel steps moving to the side. When this is done continuously it makes the body quiver and shake all over in something like a perpetual trembling shudder. Some of the dances were done in a long line like a serpentine dance with both hands on the shoulders of the one in front. Everyone sang during these dances. Their voices were rather harsh and rasping but vigorously rhythmical. When we started for the bus, all the girls rushed ahead and made two long rows so that we had to walk single file through the aisle while they sang a farewell to us—a mournful, weird song in sad minors.

At the entrance of Jezero, the next village, a crude archway, hung with beautiful pieces of embroidery greeted us with, "Welcome dear Guests." Here a young man all smiles and perspiration from continual dancing came forward to welcome us. The dancing space here was larger and grass covered. Here the costumes, also heavily embroidered in red, black, and white cross-stitch, were more conventionalized and had a subtle refinement of design not apparent in the natural flower patterns of the former village. Here the "trembling steps," though similar to those we had seen, were much more intricate.

Our next stay was at Vienna. Nine miles out of the city we visited the former imperial Castle of Laxenburg, the home of the Hellerau-Laxenburg School of the dance. Two centuries ago the dancers who lived there belonged to the ballet corps patronized by the young and merry Empress Maria Theresa. Today the famous school for rhythmics, music, and gymnastics, founded by E. Jacques-Dalcroze at Hellerau near Dresden, has its headquarters there in a castle with its moats and towers surrounded by a park of seventeen hundred acres. We visited classes in eurhythmics, gymnastics, and in dance composition, taught by Lucie Bittrich-Matfus, Melita Kosterlitz, and Brigitte

Müller. These lessons were marvels of perfection, especially the children's classes. Each instructor, a pianist of marked ability, did her own accompanying.

Miss Rosalia Chladek then gave a recital for us. It would take a poet to describe Rosalia's dancing. She possesses a style that is serious, heroic, and gripping. All her numbers were powerful, almost military in mood. Just a couple of times did she provoke a smile—once when in the rhythmic cycle the tiny bells on one knee tinkled gaily in time with her steps and another time when she was performing a roguish, Slavic dance. During the intermission we all strolled on the terrace and the girls bought copies of the book, *Die Tanzerin Rosalia Chladek*, by Fritz Klingenbeck.

One Sunday in Budapest we went in taxis to the small village of Boldog in the county of Pest. We passed soldiers with cock feathers in their hats, and peasants carrying banners on their way to mass. Farther on we saw a "goose girl" guiding her flock with a long stick. When she heard the cars she started to run and her cloud of short, pleated skirts rippled and rolled up in a most intriguing way. When we arrived the settlement seemed deserted. Everyone was at church. Through a crowd of young men just inside the front door of the church we elbowed our way in and were directed up a winding stairway at the back to a small organ balcony.

The church was full—every inch of floor-space occupied by peasant women standing in orderly rows. In the front third of the space were the young girls. They wore numerous, short, pleated skirts of crimson, American Beauty, and royal blue, huge, pleated puffed-sleeved blouses of white and large, white, starched kerchiefs of solid eyelet embroidery. Their braided hair had two bows of flowered ribbon, one at the top of the head and one at the end of the braid. The center of the church was filled with older women dressed entirely in black who formed a striking contrast to the young married women in the back. They had immense, three-cornered head-dresses of the same white eyelet-needlework as the blouses and fichus, all edged in handmade lace. Their brilliant, flannel, pleated skirts were of cerise, scarlet, and an intense blue. The costumes all appeared very clean and new with not a wrinkle or pleat out of place. We watched them saunter out of church —men and women separately—and were fairly dizzy trying to examine each costume closely.

We then went into a peasant house across the road, where a vivacious young matron showed us a towering bed piled high with embroidered pillows for guests, and a big stove in the corner with long seats on two sides for the family to curl up on in the winter. She allowed us to count her skirts—four red ones with a plain white petticoat way underneath. The richer the family the greater number of skirts! Indoors, she wore a little gold and lace cap topped by a bright red peak. The white embroidered kerchief we had noticed in church was very wide and bulky of heavy homespun material. It went around the shoulders, crossed at the waist in front and was tied in loops at the back. Over all this she wore an elaborate apron. The effect was anything but slenderizing.

On the porch we watched a girl pleating a skirt by hand—the folds were not sewed or pressed with an iron—but laid in solely by hand and *held* in place, then pressed in a chest. Out in the dooryard the young girls were starting to dance. We drew near for a closer view of their costumes. The hair dress was most unique. The hair is filled with grease, combed down over the face and tied there with a cord. It is then divided into four parts; the two front sections are rolled and looped down *under* the ears. The back parts are braided, starting at the *top* of the head; then heavy flowered ribbons are added, one at the top of the head and another at the end of the braid. Lastly the cord is pulled out and the hair remains plastered down over the forehead. While dancing the girl clasps both hands around the boy's neck and he puts both hands at her waist, a position called "Aldalpar." The dances were of a very simple social type like a "Toppanto," a continuous turning with a step, close, and stamp. The interesting part of the dancing was the way the boy would turn the girl's hips so that the voluminous skirts would ripple and swirl up at each step, displaying every skirt, petticoat, and garter. Some of our girls who danced with the young men found these steps very simple after the intricate dance of the Croatian youths. We were disappointed that we had not seen some of the national and folk dances described in the book by Edith Weber Elekes (Professor of Hungarian and Rhythmic Dancing at the Budapest Academy of Physical Education) called "Magyar Táncok" published in 1936 at 25 Logodi utca, Budapest. The costumes we saw, however, more than made up for the lack of dancing. They were even more striking than the etchings of Erno Barta depicting Hungarian Life and Dances.

In Prague "of the hundred towers" we stayed next to the Tyrs Sokol Gymnasium where we could easily watch the Sokols practice for the Paris Exposition and also for the 10th Pan Sokol Festival in 1938. We were most fortunate to have Milos Vejchoda-Ambros, M.P.E., Ministry of Public Health and Physical Education, act as our host. He arranged a special Sokol demonstration, followed by a moving picture performance showing the 1932 Sokol Festival and a Czech folk dance film. One evening at a tea-dance given for us we saw a program of national dances with Olga Frenclová as soloist. Dr. Ambros says there is a new law in Czechoslovakia requiring every individual and organization to participate in some form of Physical Education.

We were met in Dresden by Hanns Hastings of the Wigman Studio. The next morning we went to the "Tanz Schule Mary Wigman" on Bautzner Strasse. Mary Wigman had written that her summer courses closed July 31st, but that there would be an extra short session the first week in August for a group of Americans. The classes would be taught by Gretl Curth and Hanns Hastings, who for many years have been taking charge

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It Has Been Done

by FREDERICK RAND ROGERS
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THE account which follows represents a conscious attempt to relate what one New England physical director has done in a particular high school. This report is offered to readers of the JOURNAL OF HEALTH AND PHYSICAL EDUCATION in the hope that they will enjoy, applaud, and profit by the accomplishments of one of themselves. It includes only a small part of the statistical data in the original manuscript. And it reports no more than almost any other high school physical educator may accomplish, if he or she only *will*. Finally, with a few modifications, it would make an acceptable report to one's principal and superintendent of schools.

Conservation of Physical Powers

Public school physical education in the United States has been made compulsory by the great majority of state legislatures as a means of conserving the physical fitness of school children to the end that they shall become stronger, healthier children and adults, better able to enjoy life and serve their fellow men. Those who do not conceive health conservation (or "organic vigor") to be the first aim of physical education usually support this branch primarily for what it will teach children of good sportsmanship (citizenship—social efficiency—or courtesy, courage, cooperation, charity) and the skillful handling of their bodies. But even these individuals include physical fitness as an aim which must not be ignored or even relegated to secondary consideration.

It is toward these ends then, of increased happiness for all through physical fitness and good social behavior, that physical education programs should be directed; and by standards of accomplishment in terms of these aims that physical education programs should be appraised.

1. The Physical Fitness of Melrose High School Boys.—The yardstick used to measure physical fitness in the Melrose High School was the "P.F.I." or Physical Fitness Index,[1] which has been standardized, used on nearly a million school children and proven very highly valid by competent medical and physiological experimentation during the past fifteen years. A P.F.I. of "100" is "normal." High school pupils in good enough health to attend school vary in P.F.I. from 40 to 200. About half of the boys in a typical high school today have P.F.I.'s between 90 and 115 (Girls' P.F.I.'s are about 5 per cent lower). The other half includes a low group with P.F.I.'s from 40 to 89 and a superior group whose P.F.I.'s range from 116 to 200. Those with P.F.I.'s below or above these limits usually need or are under physicians' or psychiatrists' care.

It is also generally true throughout the nation that the average high school freshman class will have an average P.F.I. of 105 to 110 and that this average will decline two to four points each year, so that seniors will be about 10 per cent below freshmen in physical fitness. In other words, American high school pupils today on the average grow steadily softer, slower for their ages, more easily fatigued by physical work as they pass through the grades. Their mental powers increase, and their gross strength increases, but their *vitality*—their ability to persevere declines steadily.

What has happened to Melrose High School pupils? Taking a particular freshman class of boys, in September 1934 their average P.F.I. was 113. In February 1935 (the next regular testing time for this class) they had risen to an average of 130, and in June to 132, a very great improvement in all phases of the test. Their normal expected strength (Strength Index) had increased from 1135 to 1312, but their actual power had increased from S. I. 1283 to S. I. 1733.

Due to modifications of their programs and certain new testing procedures, this class, as sophomores in February 1936, had an average P.F.I. of "only" 117. In February 1937 as juniors it was 129, and in June 1937 it was 131. Thus, instead of an anticipated average as juniors of about 107 (an annual 3-point drop from the original level of 113) the average for this class of over a hundred boys was 24 points or 22 per cent higher.

The magnitude of this increase cannot be appreciated until it is understood that to change the habits of one boy sufficiently to improve his P.F.I. 10 per cent is a definite accomplishment—a considerable feat. In the Melrose High School more than this was done, on the average, for every senior (126 boys) while similar changes were being effected in every other class. (In June 1937 the numbers tested were 187 freshmen, 168 sophomores, 163 juniors, and 125 seniors.) Stated otherwise, Melrose High School seniors today are about a fifth stronger than they would be had they attended almost any other high school in the nation. One hundred such boys are as able, physically, as 120 boys in the typical high school.

When it is realized that all of man's abilities—his power to work, to study, to play, to serve himself and family and country, to enjoy life—are almost absolutely dependent on his physical fitness, this improvement in Melrose boys takes on extraordinary significance.

This report summarizes physical education accomplishments in one of fifty-odd programs now using P.F.I. tests in Massachusetts. Others are found in various schools, colleges, universities, institutes, Y.M. and Y.W.C.A.'s, Y.M. and Y.W.H.A.'s, foundations, camps, and settlement houses.

[1] For accounts of programs using P.F.I. tests, see March 1935 Supplement to the *Research Quarterly*, or *Fundamental Administrative Measures in Physical Education*, Pleiades Company, Newton, Massachusetts.

The question which naturally arises at this point is whether academic teachers and parents take advantage of the increased power Melrose boys acquire in, or because of, physical education? Or are their physical prepotencies wasted in unproductive "blowing off steam"? Such abilities should insure outstanding athletic success for Melrose teams. Boys so improved ought also to be more helpful at home, better poised abroad, more successful in business and college. Are they? The local physical educator has shown, by unimpeachable tests and by confirmatory results over a period of years, that his high school boys now possess, and retain until graduation at least, very superior physical constitutions.

2. Case Studies.—How does the local director achieve such unusual physical fitness levels in his boys? An outline of the program itself would hardly indicate the most important contributing factors. Other schools which record less admirable results have more adequate facilities, more teaching service, and more pupil-time in school devoted to physical activity each week. In all probability Melrose High School's superiority in health conservation lies (a) in the director's concentration on two or three definite aims, (b) in his organization of activities to achieve these aims, (c) in his thoroughgoing program of measurement to determine and meet individual needs and check results, and (d) in excellent elementary school health and physical education programs.

For example, in the average high school—indeed, in at least ninety-nine out of a hundred the country over today—Allen (a particular but typical case) would engage in the same required activities assigned to the best athletes. That is, all pupils—and certainly pupils like Allen—would be "run through" practically identical physical activities in "regular class work." But the Melrose physical director treated Allen differently. He had no medical defects—the physician classed him as "OK." But his P.F.I. was, in 1936, only 66. He was, in fact, the weakest boy physically in the freshman class.

Knowing this, the director placed him in a special class where he received individual attention and took activities best suited to develop his latent but neglected powers. His diet was investigated and his out-of-school habits were scrutinized. Most boys in Melrose High School "take" gymnastics and sports twice weekly but Allen came to this special class three times each week. The director found him to be cooperative but timid. Nor was this physical director surprised that Allen had, for scholastic marks, all C's except one B. He hadn't the physical stamina to do better, though his I.Q. was above 100.

Already Allen's physical powers have improved markedly. In September 1936 his P.F.I. was 66. In December it was 74. A special interview with the director stimulated him to go on. In January 1937, it was 86. He had lost six pounds of fat and said he "felt more like doing things." In April 1937 his P.F.I had jumped to 103; he actually begged to remain in the corrective class. In June his P.F.I. was 110.

Contrast this history with that which his case would have exhibited had he attended a high school with a typical program. To begin with, the local physical director might not suspect his weakness, not having tested him at all. So he would not single Allen out for special attention. (Remember, the doctor had marked him "all OK.") Consequently, the chances are very great that his physical powers would have declined further to a P.F.I. of 55 or thereabouts and he would be a serious physical and social problem to his parents as well as to his teachers.

At the other extreme is Edgar,[2] a freshman with a P.F.I. of 178. Edgar in reality has too much energy for his age and weight. An investigation showed him to be highly nervous, and inclined to misconduct in school. No wonder: Edgar's superabundant strength demands outlets which he must find or, as he says, "go berserk." He is attentive to his elders only if his curiosity is aroused and he sees opportunities to "do things," to use his words.

In the sophomore class Wilfred W. and Ramsey B. are similar. Their P.F.I.'s (at present) are 77 and 70. They are both "C" pupils scholastically, overweight, slow thinking, apparently lazy, problems to academic teachers and the butts of other pupils' jokes. In most high schools these boys would be unnoticed or neglected —forced to go through the motions of compliance with routine, but unresponsive and therefore declining further in fitness. In Melrose they are the particular care of the director.

These are a few cases which barely hint at the methods used, and indicate the quality of service now being rendered in the Melrose physical education program.

3. Statistical Data.—For those who like figures, the statistical analyses provided by the Melrose High School physical director are greatly stimulating. It should be noted that these data have seldom been duplicated in any American high school. Perhaps it will be helpful to repeat here (for those who are unacquainted with the P.F.I.) that the Physical Fitness Index is a measure of physical power *divided by* a norm for the individual's sex, weight, and age. The index of physical power itself (Strength Index) is computed by adding together scores from seven different tests—of lung capacity, grip strength, back, leg, and arm strength. The P.F.I. is highly reliable —its probable error is not more than 3 to 5 per cent of a score and its "coefficient of reliability" is between .94 and .98 (depending on the skill and experience of testers). That is, its reliability is higher than that for practically any other highly valid and economical mental or scholastic test now known.

A child's or adult's P.F.I. is markedly reduced, even by a cold, and responds considerably more quickly and proportionately to the presence and severity of most diseases than do most medical tests. It is, in other words, a highly valid measure of physical power to work or play, endure, recuperate from fatigue, and probably recover from illness.

As examples of the statistical computations the Melrose director makes, two tables are included of a dozen

[2] All names used in this report are fictitious.

he prepared. These tables serve four purposes here: (1) They give average Melrose scores for local comparisons elsewhere. (2) They indicate, to persons not familiar with P.F.I.'s, just what powers Melrose boys have (where else, for example, do all seniors *average* 12 pushups and 12 pullups?). (3) They indicate the amount of statistical analysis the Melrose director finds time for. (4) They help to give credence to averages which surprise even experienced testers.

We have already reported that in the average American high school, pupils decline steadily in physical powers from year to year. Table I illustrates the contrast with Melrose.

TABLE I
YEARLY CHANGE IN P.F.I. THROUGH GRADES

Class	Estimated Average P.F.I. for the nation	Actual Average P.F.I. Melrose High School June, 1937	Favorable P.F.I. Difference in Melrose
Freshmen	106	130	24
Sophomores	103	138	35
Juniors	100	131	31
Seniors	98	129	31

It should be emphasized here that an average P.F.I. of 125-130 is close to ideal. For to achieve such an average the range must be from about 100 or "normal" to 180 or higher.

(P.F.I.'s above 150 are, for most pupils, undesirable. Children so strong approach the borderline of rational healthful behavior. Almost invariably children with P.F.I.'s above 180 are nervous, poor sleepers, underweight. Often they are poor students because too high-strung or too "fine" to relax physically).

Table II includes the average scores for pupils in each grade. Note particularly the leg lifts. The extraordinarily high averages for seniors (920 pounds) is attained by an excellent program, which will be outlined hereafter.

TABLE II
AVERAGE SCORES IN PHYSICAL FITNESS TESTS, FEBRUARY, 1937

Measures	Freshmen	Sophomores	Juniors	Seniors
Age	14–10	15–11	16–10	17–9
Weight	120.8	131.8	137.2	141.8
Height	66.5	67.8	68.6	69.7
Lung Capacity	210	240	268	270
Right Grip	84	100	107.5	116.7
Left Grip	72	92.6	103.6	107.5
Back Lift	314	366	397	417
Leg Lift	680	784	836	920
Push Ups	5.7	9.4	10.1	12.1
Pull Ups	6.4	9.1	10	11.9
Strength Index	1562	1908	2158	2350
P.F.I.	126.3	129.2	129.2	129

Another set of four charts (not included here) reports, for each class separately, the average test scores in each test for seven successive tests—some eleven items including number of cases, S. I. Norm, and P.F.I. The total number of averages computed and recorded was thus $7 \times 11 \times 4$ or 308 averages.

Physical Education Programs and Methods

The statistical analyses recorded in the first part of this report reveal the greatly beneficial effects of physical education for boys in Melrose High School. The case studies of a few boys suggest the kind and amount of attention given to the individual needs of physically atypical pupils. But it would be impossible to devote so much time and energy to every boy. How is it then that the school average P.F.I. has risen from a very high level almost to an ideal level? A partial explanation is found in the physical activity programs offered in Melrose High School, whose secondary purposes are to teach games and particular skills, and through these to develop citizenship qualities.

1. The Skill and Game Program.—During the two required periods weekly for most boys, pupil-leaders and physical director keep them active in a wide variety of drills, games, and stunts. As reported in the section on case studies, those whose P.F.I.'s are below 100 attend a third period of closely supervised activity each week in a special exercise room.

The regular gymnasium program includes teaching the following:

1. Value of a strong body.
2. Correct posture.
3. Proper exercise on stall bars, chest weights, bicycle, horizontal bars, etc.
4. Correct form in walking, running, and jumping.
5. Value of rest and relaxation, and how to do so properly.
6. Handicaps to those who are overweight as well as underweight.
7. Proper nutritional procedure—diets and eating habits.
8. Individual needs or demands are attended to as far as possible.
9. A wide variety of games is played.

Of course, this is not all. "Varsity" sport training and games are provided in the following activities: football, basketball, baseball, cross-country, ice hockey, track and field, tennis, swimming, rifle, golf, and skiing. (The director is also coach of interschool basketball, track, and field sports). Since athletic success is largely determined by physical strength, it is not surprising to learn that in the last three years Melrose High School has had a great preponderance of victories. Table III summarizes the results for 1934-37 inclusive with teams from schools having, usually, equal or larger registrations.

TABLE III
ATHLETIC RECORDS OF MELROSE HIGH SCHOOL BOYS, 1934–37*

Sport	1934–35 Won	1934–35 Lost	1935–36 Won	1935–36 Lost	1936–37 Won	1936–37 Lost
Football	2	7	8	2	7	2
Basketball	10	5	10	6	8	8
Baseball	8	6	9	4	5	0
Cross-country	4	4	8	2	9	2
Ice Hockey	8	2	6	4	3	4
Track	6	2	9	0	4	2
Tennis	9	3	8	4	7	2
Golf	0	0	4	2	5	1
Swimming	0	0	0	0	0	2
Totals	48	29	62	24	48	23 (5 ties)

* The 1937 football record was a sensational untied and undefeated season. The average S.I. of the first 18 men on the squad was 2,800 points.

To teach a wide variety of skills, a decathlon was conducted in the winter and spring of 1936-37. Twenty events were scheduled, with a certain number of points awarded for each of thirty-five different levels of performance. No prizes were promised for winners and no pressure was exerted to induce boys to participate.

It is characteristic of Melrose High School boys that all but ten participated in one or more events—641 boys in all. The total number of records reported was 4064—an average of nearly six and a half different events for each boy. Of considerable significance was the half-mile. Two hundred ninety-nine boys ran in this event, with an average time of about two minutes and twenty-five seconds—a record of participation and accomplishment which well substantiates the P.F.I analyses showing Melrose boys to be in excellent physical condition. Table IV reports the events included and the number of participants in each event.

TABLE IV
MELROSE HIGH SCHOOL 1937 DECATHLON

Events	Participants	Events	Participants
1. 100 Yards	319	11. 5-Potato Race	155
2. 50 Yards	292	12. 8-Potato Race	175
3. High Jump	73	13. Half-Lever	33
4. R. Broad Jump	190	14. Pull-Ups	158
5. Shot-Put	245	15. Push-Ups	148
6. Half-Mile	299	16. Rope-Climb	152
7. Hop-Step-Jump	253	17. Free-Throws	371
8. St. Broad Jump	202	18. Baskets (1 minute)	372
9. Fence Vault	34	19. Football Punt	178
10. Snap-Under-Bar	227	20. Football Pass	188
Total			4064

Other unusual sports programs included a touch-football schedule in 1936 for 72 teams. Three hundred ten formal games were played. During the winter of 1936-37, 62 basketball teams played 328 games; and during the spring, six baseball teams played 15 games. Other intramural events included: spring of 1937, 6 softball leagues with 72 teams, 284 games; intramural tennis, 67 matches; 12 ring hockey teams played 72 games; 1076 events in all.

2. Special Corrective Classes.—All pupils except those with very high P.F.I.'s attend two physical education classes weekly. Activities are conducted for these pupils on playgrounds and, when the weather is inclement or cold, in the gymnasium. About October 20, regular gymnasium programs are followed by pupils with P.F.I.'s above 100.

At this time a further division is made. Boys whose P.F.I.'s are below 100 go to the special exercise room adjoining the main gymnasium. Here they are given individual programs of activity or rest, each according to his particular needs.

However, two periods of such attention weekly are not sufficient to raise the fitness of low P.F.I. boys. Therefore, they attend a third "corrective" class weekly when otherwise they would be in study hall. For certain pupils —those below P.F.I. 85—a fourth, and sometimes a fifth, physical education class weekly is advisable. These further additions to physical education's time have not yet been made in Melrose except very occasionally.

In October 1936, eighty-three boys were assigned to corrective classes. Their average P.F.I. was 90. In February it was 104, a gain of about 16 per cent in less than six months for the lowest group, the most difficult group to improve.

These corrective classes are supervised by the director as part of his regular work while other boys are exercising in the main gymnasium under the immediate leadership of pupils. (These pupil-leaders are trained by the Director). He shuttles back and forth between corrective room and gymnasium. At one moment he may be teaching a new game to sixty boys—in the large room. At another moment he will be helping an individual who is overweight or mal-nourished, or simply weak muscularly, or who has flat feet, poor posture, or some organic weakness—in the corrective room. This "help" ranges from checking particular exercises to private and intimate discussions of the boy's food habits, rest habits, personal problems, etc.

3. Teaching Social Efficiency.—There is some disagreement concerning the priority of health or social efficiency as teacher-aims in physical education. But no one questions the absolute importance of teaching "good sportsmanship" or justice, courage, courtesy, cooperation, loyalty, and other social virtues in or through sports. Unfortunately, good objective tests are not yet available to determine whether these ends are served, but a few principles have been outlined for the guidance of teachers. Of these, the most universally accepted in theory is "equality between opposing teams." That is, the more nearly of equal ability opponents are, the fairer and more sporting will be the contest.

In the Melrose High School intramural sports, the doctrine of equality is becoming a prime conditioner of programs. For example, in the decathlon conducted last winter and spring, boys were divided into six different levels of ability using the Strength Indices from their P.F.I. tests. Thus, a weak boy was not required to oppose, or induced to surpass, a strong boy, even on paper, but participated in his own class and compared himself with boys of approximately his own strength. Since the S. I. (when properly determined) is about 50 per cent more potent in determining athletic success than the best theoretical combination of age, weight, and height, the director was guaranteeing his pupils a fairly high degree of equality in whatever competition ensued.

The accuracy with which Strength Indices predict athletic success is well shown by results of decathlon tests. For example, the winner of the decathlon in Division I earned 974 points. His S. I. was 3340. The winner of Division II earned 911 points. His S. I. was 2278. The third-place winner in Division I (S. I. 2525; 934 points) surpassed the first place winner in Division II (S. I. 2278; 911 points) in both decathlon points and S. I. This was true for all but two of the twenty events (basketball goal throw and half lever). Thus, each pupil was placed in a class where he *might* succeed, and was

(*Continued on Page 117*)

Units of Study on Milk

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Foreword

IN ANY nutrition and health teaching that is planned so as to function in the child's daily life, milk should receive an important share of attention, for it is superior to any other food for bone and muscle building—the factors that influence the growth of any child. Milk is an important, economical source of proteins of the best quality; of mineral elements, particularly calcium and phosphorus, needed for bones and teeth; of food energy or calories; and of vitamins A, B, and G which are needed for growth as well as for general health protection. In addition, much of the modern milk supply of today has been reinforced with the calcifying vitamin D, the vitamin needed for the body to use the food calcium and phosphorus in building bones and teeth, but the vitamin so lacking in our normal food supply.

For the rapid and steady growth of children, whole milk in some safe form should be taken in some way at all three meals. To be valuable to the body, milk does not have to be drunk. It serves equally well whether taken as soup, in a creamed vegetable, custard, or pudding.

Bottled milk, both raw and pasteurized, and the concentrated milks, evaporated milk or whole dry milk, are the important forms of whole milk that are available as carriers of milk nourishment.

However, information has been limited concerning the nutritive value and the availability of the concentrated milks, especially the evaporated milks, the differences between them and the advantages of each. Nor has the information become widespread as to the process used in the reinforcing of milk with vitamin D by ultra violet or "sunshine" rays. That teaching materials toward this end are comparatively new and limited is indicated by the constant requests for help from teachers in the field. Modern trends and needs indicate that teachers are incorporating in their integrated programs units on the evaporated milks, but the units can be developed only after they have obtained help from numerous sources.

The suggestions for developing the units of study that follow therefore are confined to irradiated evaporated milk because that is where help seems to be most needed. Not only are these suggestions given as a symposium of methods from a number of sources, but also with the hope of encouraging the development and completion of further activities that may be developed for a greater understanding of the part milk plays in better health and better living conditions.

Suggested Study Outline

1. Ways in which the milk supply has been affected by ocean travel, war, and the growth of industrial cities.

a) Prior to the Napoleonic era, milk, with the exception of such products as cheese and butter, was considered a highly perishable substance, and was usually handled directly from farmer to consumer.

b) By the time of the Napoleonic Wars, heavy ocean traffic of both trading and war vessels had developed. Passengers and sailors often became ill, and sometimes died, as a result of scurvy and other deficiency diseases, because the ships could not carry food for an adequate diet.

c) Armies of the same period suffered from a scarcity of food that could be transported in safe condition.

d) The need of both ships and armies led the French Government to offer a prize for the discovery of methods for preserving food.

e) The production of sweetened condensed milk, the forerunner of evaporated milk, was stimulated by the milk needs of the Union Army during the Civil War.

f) *Unsweetened evaporated milk* was needed and used in large quantities by the armies of the Spanish-American and World Wars.

g) Great cities developed and created a demand for enormous quantities of safe milk at low cost and milk that could be handled without refrigeration. This resulted in the establishment of evaporated milk as a staple food. It could be packed in the best of dairying regions and shipped to the centers of population. It was found to be the form of concentrated whole milk most valuable for the largest number of purposes.

2. Scientific discoveries and inventions that affected the methods of handling milk.

a) Nicholas Appert, a Frenchman, won the French Government's prize in 1810 of twelve thousand francs by inventing a process for preserving milk and other foods by heating and airtight sealing.

b) Between 1810 and 1884 numerous French, English, and American inventors developed machinery for the production of sweetened condensed milk, preserved by the addition of sugar.

c) The French scientist, Louis Pasteur, discovered that food was spoiled by bacteria which heat would destroy.

d) In 1884, the first unsweetened evaporated milk plant in the world was started in Illinois, employing a sterilizer which solved the major problem of evenly heating the contents of the sealed cans. From this point on, evaporated milk rapidly achieved acceptance as the most

widely useful form of concentrated milk.

e) In 1925 an American chemist, Harry Steenbock, discovered that foods could be irradiated with ultra-violet or "sunshine" rays to increase the vitamin D content of the food. The irradiation of evaporated milk became one of the greatest contributions to the nation's health.

3. Effect of recent scientific study of food upon the use of irradiated evaporated milk.

a) In 1898, the date of the Spanish-American War, began the new and glorious age of the science of food and nutrition, the study of the relation between what we eat and our physical well being.

The existence in food of what we now call vitamins was first suggested at that time. Since then, thousands of scientists in hundreds of laboratories have been "taking foods apart" to find *why* they are needed by human beings and *how* they are used in the body.

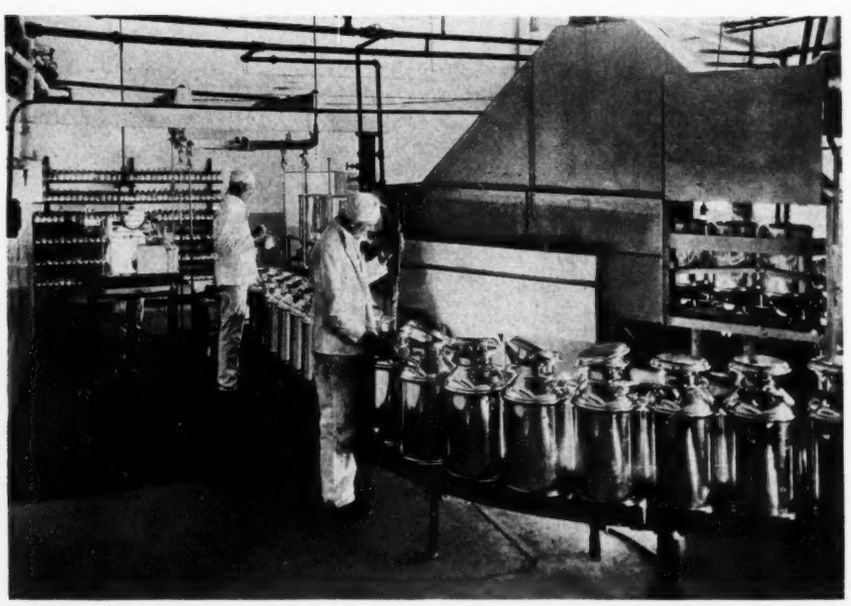
When milk was "taken apart" it was found to contain a favorable ratio of calcium and phosphorus—the most important "building stones" of the bones and the teeth. Milk was also found to be a very rich source of calcium and phosphorus, as well as of protein for muscle. But it was likewise learned that calcium and phosphorus cannot be used to the best advantage in the body unless vitamin D is present. When there is not enough vitamin D in the diet, poor teeth and badly formed bones may result. That is one reason why so many babies have bowlegs and cramped chests—defects which hamper them for the rest of their lives.

The scientists immediately began to try to find a way of supplying a liberal and easily available amount of vitamin D to everyone, especially babies and growing children. Nature intended that this particular vitamin should be created in our bodies when the ultra-violet rays of the sunlight shines on them. Civilization, however, has upset that plan. Walls, ordinary window glass, smoke, fog, and clothing all shut us away from the sunshine's ultra-violet rays. In winter months, moreover, the rays are weak, even on clear days. In foods used daily, with the exception of certain fish oils, vitamin D is scarce. There is very little in eggs, none in the average cereals, fruits, vegetables, and meat. No foods, prior to the irradiation of milk, could be depended upon to bring the benefits of vitamin D economically to one and all.

Therefore, two scientists, Dr. Hardy Steenbock and Dr. Alfred Hess, set to work to find a way to produce vitamin D in abundance. They both were fortunate in discovering that ultra-violet rays will create vitamin D in certain foods, milk heading the list. These rays, similar to those which come from the sun, may be produced by special types of lamps.

Evaporated milk, because it is a whole milk containing a large amount of bone- and tooth-building calcium and phosphorus, and because it is economically and conveniently available to everyone everywhere, is an ideal milk to be "irradiated" with "sunshine" ultra-violet rays. It provides just what the scientists wanted—vitamin D for all.

b) Nutritionists have found that growing boys and girls should have every day the important nutritive elements contained in one quart of milk. One "tall" can of irradiated evaporated milk supplies this requirement and extra vitamin D besides. The milk may be taken as a drink or in foods made with milk as mentioned above.



The study of processing raw milk for distribution as irradiated, evaporated milk makes an interesting project for a class. A few of the steps are illustrated here. Above is shown inspection of the milk as it arrives from the farm. It is tested for purity, freshness, and butter fat content.

On the opposite page are the gigantic kettles, "vacuum pans," in which the milk is concentrated by the removal of about 60% of the natural water. Milk boils in this vacuum at 130° F. Because of the low temperature and the absence of air, the evaporation is effected without loss of the nutrients raw milk supplies.

Irradiation of the milk is shown in the illustration at the far right. A thin film of the fluid, flowing down the inside of the tapering cylinder, is exposed to the ultra-violet rays of a special carbon arc lamp suspended in the center, as pictured in the inset. Certain substances in the milk absorb this "sunshine" and thus add to the Vitamin D content.

Further processes, not illustrated here, complete the preparation of the milk for consumption. By homogenization the butter fat globules are broken up into minute particles which remain evenly distributed throughout the milk. Thus there is no "cream line" in this milk.

After the can is filled and closed, it is subjected to a temperature of 240° F. for fifteen minutes in a steam chamber. This step sterilizes the milk so that it will keep pure and sweet indefinitely.

Suggested Approaches

1. In stories we read about the World War, it is often said that Ger-

many lost and the Allies won because the British, French, and American armies had a better supply of food. This was particularly true of milk, needed by the soldiers to help them maintain their strength and health under very adverse conditions. It is interesting to learn how the Allies managed to secure such a large amount of milk when all the milk cows in the war region had been either killed or taken away; and how could milk be handled on the battlefield to keep it fresh and safe? The problem was solved by the use of milk that came in sealed cans—the same evaporated milk now sold in every grocery store though, of course, the milk was not then irradiated.

While the soldiers were discovering the milk in cans, so were the people at home. Some special values had been found in evaporated milk. What were they? Its use has increased since the end of the War until now more than 2,700,000 pounds of irradiated evaporated milk are consumed in the United States every day.

Exactly *what is* irradiated evaporated milk? What is its food value and how is it used? What happens after the cow is milked and before the cans are delivered to the grocery store? These, and many other questions need to be answered; and a study of irradiated evaporated milk should provide some very interesting information.

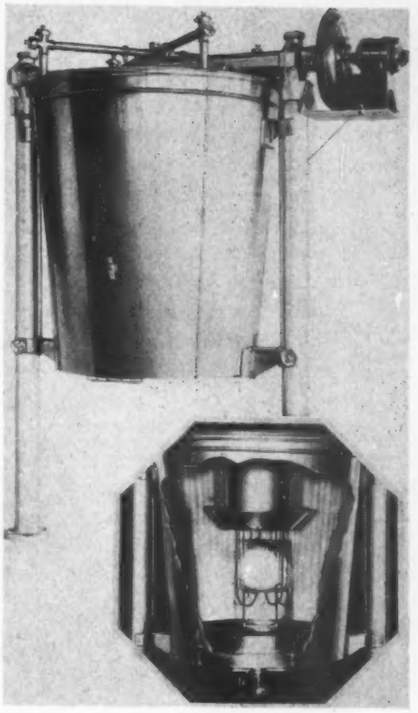
2. Scientists tell us that the best amount of milk for a growing boy or girl is a quart a day. The problem is: how can this amount of milk be put into the day's food.

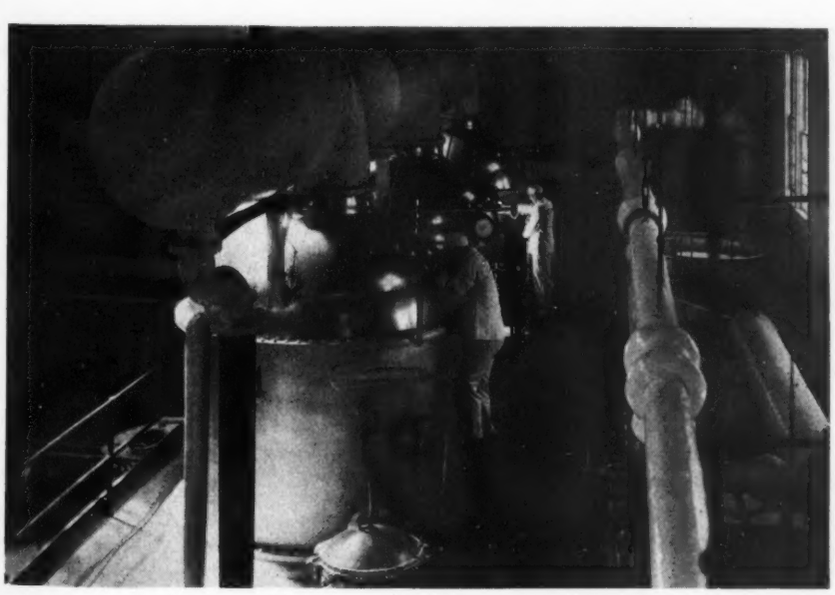
Have a "tall" can of irradiated evaporated milk before the class. Empty the contents into a pitcher. Add an equal amount of water, mix, fill three tumblers, emphasizing the health rule that boys and girls need a glass of milk at each meal, taken as such or *in food*. What is to be done with the milk remaining in the pitcher? How could irradiated evaporated milk be used, as it pours from the can *without* adding the water? The children should be able to suggest various ways of including milk in food. They might also find recipes telling how irradiated evaporated milk may be put into foods.

Letters may be written to the teacher describing the foods mother makes with milk at home, the amount of milk used each day, and how many people there are in the family.

From this can be developed a more specific discussion of the nutritive value of milk, culminating in an animal experiment.

3. Once, people could buy milk directly from the farmers who brought it to town. Then commerce and industry developed and great cities grew around the factories and offices. The farmers living near these cities could supply only a small part of the huge quantity of food that was needed. Especially was there a heavy demand for pure, safe milk. Students will like to study how the cities solved this milk problem and what contribution is made by irradiated evaporated milk.





4. About 1800, the time of the Napoleonic Wars, most of the countries of the world had developed an important trade with each other, carried on by sailing vessels. This commerce over the oceans was hampered by a serious difficulty. The ships had to carry non-perishable food, of which the supply was very limited. As a result, the sailors and passengers could not have an adequate diet, and scurvy and other diet deficiency diseases caused much illness, sometimes death.

In 1810, a French scientist discovered ways to preserve nearly all of the plant and animal food then known. His was one of the outstanding contributions to humanity. The name of the scientist, his discoveries and the type of foods that we now use every day which owe their beginning to him will make an interesting unit of study.

Suggested Related Activities

English.—1. Have the children write stories describing everything that happens to a can of irradiated

evaporated milk from the time the milk leaves the farm to its appearance in food on the table.

2. Language and composition problems will be constituted by the various reports to be prepared, as well as by the comprehension test. In most cases, letters in quest of reference material can be written by the children. A number of new words will be learned such as bacteria, evaporation, irradiation, sterilization, etc. At the end of the project, these can form the basis for a spelling and meaning test.

Art.—1. As a class activity, the children may illustrate these various steps by means of a chart, also as a basis for sand-table construction.

Social Studies.—1. From the local Chamber of Commerce, the children can obtain a list of irradiated evaporated milk plants in the state. Discuss why the plants are located as they are; and if there are no plants in the state, seek the explanation—an excellent way of learning one phase of agricultural resources and their connection with topography and climate. The Irradiated Evaporated Milk Institute can supply a list of all irradiated evaporated milk plants in the country. With the aid of this list, the children can place marks on individual maps of the United States, representing irradiated evaporated milk plants. Then they may define in color the principal dairying regions. Explain the relationship between those regions and the plant locations. Compare the annual pack of irradiated evaporated milk in various dairying states.

2. Investigate how many dairy products compete with irradiated evaporated milk in buying raw milk from the farmer—butter and cheese factories, bottled and dry milk plants, etc.

3. If there is an irradiated evaporated milk plant accessible to the school, arrange for the children to visit it and to plan a report of what they saw for the other class groups.

4. Read carefully the labels on the cans of several brands of irradiated evaporated milk. Note the description of the content and statements concerning its composition and use and the amount of irradiated evaporated milk in the can. Notice also the spot of solder at the bottom of the can. Account for this.

5. As both a health and civics project, a survey can be made of the families represented by the class, recording the number of adults and the number and ages of the children, and the amount of milk consumed by the family per day. The milk consumption can be checked against the quart a day specified by nutrition authorities for children and the pint a day needed by adults. If not enough milk is being used, material from the pamphlet library can be taken home by the children for discussion with their parents.

Science.—1. An animal feeding experiment is one of the most interesting and effective means for nutrition teaching. Secure two pairs of month-old white rats. (State university and private laboratories often can supply them.) Use gram scales to record the weight of each rat. Place the pairs in wire cages. Feed the first pair bread and water and the second pair bread and irradiated evaporated milk, diluted with an equal amount of water. Three times a week also feed both pairs a little cabbage or spinach leaf, carrot, or some other green leafy or yellow vegetable.

Weigh the rats each week until a definite change in weight and size can be seen. The milk-fed pair will be decidedly superior in growth and appearance, energy, and disposition. The other pair will be under-developed. Then reverse the procedure and show that even though the food is adequate for a time, this does not mean the rats will continue growing on the improper diet. Draw an analogy for growing boys and girls, showing the necessity of a continuous supply of the right food.

If there is a school nutritionist, she will be glad to cooperate in carrying out the test. The children can do the work of caring for the rats and of charting the growth curves. The class may report the project to other class groups as part of a health program, or during an auditorium session.

2. If there is a home economics department in the school, arrangements can be made to have the class witness the preparation of foods containing irradiated evaporated milk. These foods can then be served to the class in the school lunch room.

The home economics department will also be glad to cooperate in three simple experiments:

a) Pour some irradiated evaporated milk into a container. Cover and allow to stand over night. Then have the children examine it and explain why the cream has not risen to the top. (The fat globules in irradiated evaporated milk have been broken into fine particles and remain in permanent suspension.)

b) If there is a microscope available, use it to observe the fat particles in a drop of irradiated evaporated milk diluted with three drops of water and compare it with a drop of bottled milk diluted with one drop of water. A much higher magnifying power will be necessary to see the fat particles in the irradiated evaporated milk; if possible use an oil immersion lens. Account for the difference in size of the particles.

c) Boil some bottled milk to the consistency of irradiated evaporated milk. Then have the class explain why the results do not resemble irradiated evaporated milk. (This is an excellent way of reviewing the use of the vacuum pans and the sterilizer in the irradiated evaporated milk plant.)

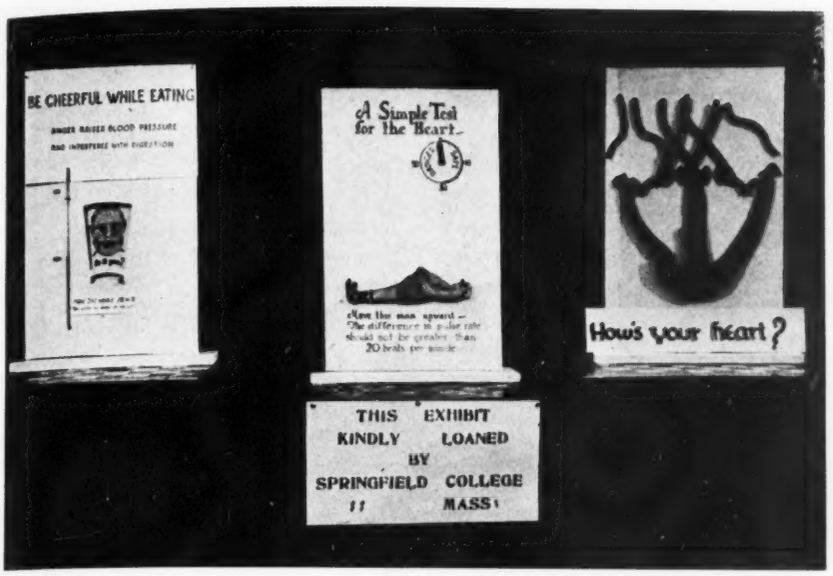
3. A group of children can be assigned to collect irradiated evaporated milk advertising from magazines.

Arithmetic.—1. As part of the arithmetic work, the class may determine the prevailing price of irradiated evaporated milk per "tall" can. If a family needs 24 quarts of milk a week, what would the weekly milk bill be if irradiated evaporated milk were purchased? How does this cost compare with that of other whole milks available?

2. It takes approximately 100 pounds of raw milk to yield 43 pounds of irradiated evaporated milk. How many pounds of raw milk are required daily for the 2,700,000

(*Continued on Page 125*)

Health is Your Greatest Wealth


BE CHEERFUL WHILE EATING
A Simple Test for the Heart
How's your heart?
THIS EXHIBIT KINDLY LOANED BY SPRINGFIELD COLLEGE MASS.

By

J. WESLEY McVICAR

Director of Physical Education
Central Y.M.C.A., Toronto, Canada

USING as a slogan "Health is Your Greatest Wealth," Toronto Central Y.M.C.A. just concluded its most recent and comprehensive "Health Week" program. Although there is nothing new in the health week idea, perhaps the setup used in Toronto is somewhat unique in the "integration of efforts" and may therefore serve as a guide to other organizations or schools contemplating similar projects. Although the accompanying outline is far from exhaustive, it may serve as a stimulus toward other and more original ideas.

Some of the values which we feel have resulted from Health Week are:

1. A more unified relationship of the programs of health and physical education.

2. A consciousness on the part of the "Y" membership that we are a health organization.

3. A consciousness on the part of the public that the "Y" is a community organization.

4. The attitude of all health organizations, the medical fraternity, and of the public was more friendly.

5. Various clubs within the institution were interested in educational programs dealing with health matters.

6. The Health Week project required and obtained the cooperation of the entire staff, as well as the united efforts of all integral clubs.

7. Considerable publicity of the best type was received from press and radio.

8. Many persons (and new memberships) were attracted to the building.

Health Week Committee.—Patron, Lieutenant Governor of Province; Honorary Chairman, Head of Provincial Medical Society; Chairman, Medical Representative on Physical Committee; Vice-Chairman, President of Physical Committee; Secretary, Physical Director.

Advisory Committee.—Representatives of Medical Society, Dental Society, Hygiene Council, Victorian Order of Nurses, Civic Department of Health, Society of Optometrists, etc.

Projects Committee.—Representatives of Membership Committee, Physical Committee, Business Men's Club, Senior Club, Young Men's Club, Health Club, Y's Men's Club and Boys' Department.

The Health Week Committee was organized five months before the dates set for Health Week. At first monthly meetings were held, then weekly. It was found most helpful to have an M.D. as chairman, as he was able to present the ethical aspects of every problem. The Advisory Committee was also of considerable assistance in this respect, and in indicating sources for health materials and in obtaining the most distinguished speakers of the medical professions.

The Projects Committee was the working unit and was responsible for all of the displays, demonstrations, and clinics. Each club was assigned one or more specific tasks and the representative of each club selected his own committee, acting under the advisement of the sister committee. As a rule these clubs were enthusiastic and often went after spectacular and commercialized health materials and hence needed the restraining influence of the Advisory Committee.

Following is an outline of the Health Week projects.

Demonstrations

(Physical Department)

Swimming (The Relation of Aquatics to Health).—This program has been arranged to reveal in part the health value of aquatics and is designed to last one hour.

1. Demonstration of the most popular strokes with an explanation of their kinesiology quoted from Professor Cureton's *How to Teach Swimming and Diving*.

2. Display of ornamental and trick swimming by the Mermaid Swimming Club Trio.

3. Demonstration of the various methods of release and rescue used in lifesaving, accompanied by some suggestions related to water safety education.

4. Demonstration of fancy diving and description of the health value.

5. Demonstration of the Shaeffer method of resuscitation.

6. A hospital specialist to explain and demonstrate the use of the swimming pool as a means of after-treating infantile paralysis victims.

Exercise (The Relation of Exercise to Health).—Forty-five minute demonstration by the Women's League of Health and Beauty with accompanying explanations. Thirty-minute demonstration by the Danish gymnastic class with accompanying explanations.

Combative Skills and Health.—Twenty-minute exhibitions of boxing, wrestling, weight lifting, and fencing. A commentator explained how these various contests developed particular sets of muscles, etc. The value of training was stressed. Moves and counter moves in slow motion were of great interest. Demonstrations were held on separate nights.

Promotion and Publicity
(Membership Department)

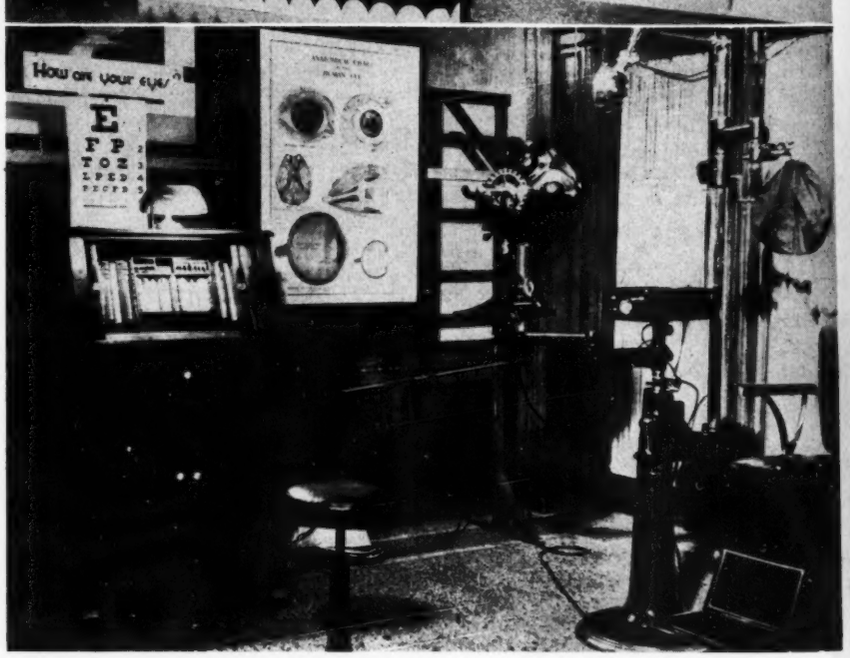
Fifty-five hundred copies of an eight-page *Health Bulletin* were printed and issued at a cost of $81, not including mailing. This booklet included a schedule of the Health Week program, health articles, and quotations from articles by Health Week speakers. The publicity committee contacted the city newspapers and as a result reporters covered every health talk, as well as the demonstrations and the clinics. This made Health Week a daily feature which was constantly before the public. Unsolicited publicity was given through the "News of the Day" radio broadcasts. Only one commercial advertisement was used, and that, an invitation to the public to attend one of the Physical Displays. In addition the Publicity Committee provided lobby announcements concerning the forthcoming Health Week. Y.M.C.A. posters emphasizing health and activity were prominently displayed. A table containing membership material was handled by two junior secretaries who looked after new members. Strangers were escorted by young pages through the Health Exhibits and the Physical Department.

Speakers' Programs
(Senior Division)

An average of two addresses a day were given in the Association, most of which were in connection with supper club meetings. However, four open forums were held and when speakers addressed banquet assemblies the doors were thrown open after the meals and no admission was charged those who came for the addresses only.

Subjects were as follows: Tuberculosis and Pasteurization, Preventative Dentistry and Its Relation to Good Health, The Public and Periodic Health Examination, What Training Means to the Athlete, How the City Contributes to Your Health, The War Against Cancer, Mental Health, Physio-Therapy and Massage, Mental Hygiene, and Religion and Health Healing.

Three fifteen-minute radio addresses were also given. The radio company donated its facilities. A de-



bate between two clubs was conducted on the subject—"Resolved: That a National Plan of Compulsory Health Insurance should be Established in Canada." In addition, an oratorical contest was conducted by the Boys' Department on the question, "Why Health is Your Greatest Wealth." Winners of this contest presented their talks before local service clubs.

Lobby Display
(Young Men's Division)

The lobby was turned into one grand showcase. Health posters and special exhibits were artistically displayed as a result of assistance proffered by some professional window-dressers.

The features included:

1. Pure food showcase: Illustrated menus obtainable in the "Y" Cafeteria. In connection therewith the Cafeteria presented all patrons and visitors with a five-page mimeographed bulletin on "Foods and Calories." The Cafeteria also printed a bulletin showing that all meats sold in Toronto were not government inspected.

2. Sporting goods showcase: Games equipment and exercisers provided by local sporting goods store.

3. "Bread is the staff of life": Showcase exhibited by local bakery.

4. First aid: Contest conducted by Boys' Department in the building and equipping of first-aid kits. Exhibit by "Johnson and Johnson" of

first-aid material necessary in home, office, and factory.

5. Health League of Canada: Two large display billboards showing function of league and illustrating health laws.

6. Safety Education: Fire, accident, etc., prevention sponsored by Ontario Safety League.

7. Dairy Display: Table of materials illustrating the comparative nutritional value of milk.

8. Saint John Ambulance Display: Safety, lifesaving, etc. (American Red Cross).

9. Help Yourself Table: A table holding numerous health pamphlets by courtesy of Health League of Canada and Metropolitan Life Insurance Company.

10. Red Cross Health Poster Display.

11. Ontario Temperance Federation Poster Display.

12. Miscellaneous Health Posters.

Posters for above were obtained from: National Live Stock and Meat Board, 407 S. Dearborn St., Chicago, Ill.; American Social Hygiene Council; British Social Hygiene Council, Carteret House, Carteret St., London S.W. 1.; Ontario Temperance Association, Toronto; Canadian Social Hygiene Council, Toronto; Canadian Tuberculosis Association, Ottawa; U. S. Government Printing Office; Royal Life Saving Society; American Red Cross; Metropolitan Life Insurance Co.; Health League of Canada, Toronto; Saint John Ambulance Society; Ontario Safety League; Johnson and Johnson; Dental Board of United Kingdom, 44 Hallam St., London W.I.; Health and Cleanliness Council, Tavistock Square, London; U. S. Public Health Service; Ontario Department of Health, Ottawa. (Canadian names will suggest similar organizations in other countries.)

Educational Clinics
(Conducted by Various Clubs)

This display was held in a large social room and was open from 5 P.M. to 10:30 P.M. each day with attendants in charge. Pains were taken to stress the word "educational" so as to avoid suggestion of public clinics or testing. A sign was prominently displayed to the effect, "These exhibits are for educational purposes only. For remedial advice, consult your family doctor or dentist."

Health Club Exhibit.—This exhibit included practically all the equipment used in modern health clubs: ultra-violet and infra-red lamps, bakers, heat and vapor cabinets, massage tables and massage liniments, short wave machines, etc. These were furnished gratis by companies handling same. Attendants conducted those interested through the "Y" Health Club.

(*Continued on Page 121*)

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VOL. IX FEBRUARY, 1938 Number 2

Shall We Increase Association Membership Fees?

IN the last thirty years the scope of the fields of health and physical education has increased tremendously, and each new year has brought to the profession new problems, new responsibilities, and new interests. The program no longer consists only of learning personal hygiene and exercising the big muscles, it has expanded to one of scientific education for healthy living. As the center of interest has turned from a purely physical one to a broader mental and physical scope, the Association has always tried to keep pace with the best thought of the day. It has encouraged research, and has published the results of experimentation and experience. It has brought to its membership the new trends in the field, and has given many individuals the inspiration they needed to better their own programs. The Association has done much in the service of the profession, from the early days when the very paucity of our knowledge limited our vision and our efforts, to the present day when each new advance in education and applied science adds to the complexity of the problems to be faced. But much remains to be done.

Today we find ourselves a recognized part of the broad field of education, a field which is straining every nerve to keep pace with the best vision of its frontier thinkers. If we are to maintain our respected position in this field, we too must have more and better individual and cooperative research, more and better work by individuals, committees, sections, and affiliated organizations, as well as by the Association as a whole. This calls for planning, permanent personnel — and *funds*.

The present budget of the Association is approximately $30,000 for this fiscal year. Of this, the greatest part goes to produce our publications, and there is very little left for other constructive purposes. We might increase this budget by increasing our membership, but since the major portion of every membership dollar at present goes to produce our publications, the net returns from such an increase would not be large. The other alternative is to increase our dues.

In considering this problem, an inquiry was made into the annual dues of a number of other professional organizations. A few of these are tabulated for your information:

Dues Including One or More Publications

American Home Economics Association ($1.00 for dues, $2.50 for Journal)	$ 3.50
American Psychological Association	10.00
American Association for the Advancement of Science	5.00
American Sociological Society	6.00
College Art Association	10.00
American Association of School Administrators (Formerly Department of Superintendence of NEA)	5.00
American Public Health Association	5.00
American Chemistry Society	20.00
American Philological Association	5.00
Society for Research in Child Development	5.00
American Society of Mechanical Engineers	20.00
American Institute of Electrical Engineers	15.00
American Medical Association (Depends upon local dues)	15.00 to 20.00
National Education Association	2.00

Dues Including No Publications

American Physiological Association	$ 2.50
American Association of Zoology	4.00
American Chemistry Society	9.00

It will be seen that the dues of our Association — $2.00, including both membership and the JOURNAL OF HEALTH AND PHYSICAL EDUCATION — *are lower than those of any other professional group investigated*, with the exception of the National Education Association, which has close to 200,000 members.

Recently the Governing Board was asked to express itself on the proposal of raising our dues to $2.50 for regular membership, keeping the $5.00 professional membership. With but one exception, the members of the Governing Board were heartily in favor of this proposal. Such an added fifty cents a year per member, together with an expected increase of 2000 members, would produce an additional $5000 a year to be used in advancing the work of the profession. Some of this might be used to aid sections that are working on worth-while projects, some might be devoted to group efforts, some to increasing the size of the publications, some to the publication of year books (which should pay for themselves once the initial expenditures were underwritten), and some to added permanent personnel. Increasing the dues to $3.00 a year would give the Association $10,000 a year for such constructive work. It is the opinion of your President that dues should be increased to $3.00 a year.

This proposal will be presented to the Legislative Council for action at the Atlanta meeting. It is being presented to you now in the hope that interested members will discuss it with their state, district, and other representatives to the end that the true will of the membership may be expressed at the Council meeting in April. — C. H. MCCLOY, *President, American Association for Health and Physical Education.*

The Major And Minor In Physical Education

CERTAIN advantages of having a "minor" in physical education have been proclaimed by a number of writers in recent years. For the most part their concern was in the teacher needs in rural areas and small communities. For those communities which were unable to employ a full-time teacher of physical education, it was considered extremely desirable to have a person with some knowledge of physical education at least. This need was a real one and parents in smaller communities were interested in knowing that such a "combination" teacher was possible.

Now, however, comes a new angle to the question of the minor. Previously, the normal schools have been concerned with training the *academic major* along the lines of a *physical education minor*. This insured someone on the staffs of the smaller schools who could give some degree of trained direction to new programs of health and physical education, even though these programs of necessity had to start from modest beginnings.

The new angle reverses the procedure and has a significance not apparent at first glance. A value has been discovered in the combination of *physical education major* and *academic minor*. This combination became an expedient during the years of the great depression when teaching staffs and subject courses were curtailed. Teachers were glad to resort to makeshift measures to retain a position during this period of crisis. The experience was broadening, even if exacting, and physical education became more closely integrated with other school subjects as a result.

Now that broadly trained physical education teachers have been in this work for several years another advantage of the combination major-minor is becoming apparent. It has been a common procedure in the past for men and women teachers to aspire to administrative and supervisory positions as they grew older and advanced in their profession. This ambition to aspire to administrative work was also affected by a lessening interest in teaching the activity classes. While enthusiasm for active physical education classes is not necessarily a trait of youth, nevertheless on the whole the youthful person has more energy and endurance for such strenuous type of work.

The problem that is gradually arising is how to take care of those successful teachers who do not become administrators. There are not enough administrative positions to go around and take care of all the physical education teachers who reach late middle age. Men teachers are more fortunate than the women in this respect for most of the administrative positions in city systems go to them. To be sure, there are a number of important supervisory positions open to women but these are fewer in number than the administrative openings for men, and there are more women teachers to be considered. In the college field where departments are more separated there are comparatively more administrative positions for women but still not enough to take care of all the older teachers who would welcome being relieved from at least a few of the activity classes in the gymnasium or on the athletic field.

The advantage of an academic minor is here clearly apparent. Such teachers as desire to give up some of the activity classes can give more time to academic classes. They will be adaptable to change as their interests change. The academic classes will be enjoyed too, particularly if along lines related to physical education. Here is one source that may provide well trained teachers of health education and safety education. These are fields for which full time workers have not been possible even though the need was so apparent as to warrant them. Health instruction, safety, biology, sex education are some fields in which minors would adequately take care of the mature teacher's needs. Such a provision would not only help the individual but also give better instruction in some fields of learning at present neglected. There is every likelihood that the value of the minor will come to be more and more recognized from this angle.

Make Your Convention Plans Early

IT IS NOT too early for the professionally minded members of our Association to start making plans for attendance at the national convention to be held in Atlanta, or at the conventions of their own districts. Preliminary announcements of the district conventions are published in the District News Section of this JOURNAL, and the final programs will be published in the March and April issues. The dates of the six district conventions are given on the front cover of the JOURNAL. Consult them if you plan to be a delegate at Minneapolis, Spokane, Atlantic City, Chicago, Salt Lake City, or Atlanta.

Arrangements for the national meeting are also well under way, and an unusually interesting program is promised all those who travel to Atlanta in April. Springtime in Georgia gives promise of dogwood, magnolia, and balmy weather. In addition, the convention committees, the management of the Hotel Biltmore, the local school authorities, and all those concerned with the preparations for the convention are bestirring themselves with true Southern hospitality to insure that our first convention in the "Deep South" shall be a high point in Association history and a memorable event for all who attend. The Program Committee and Section Chairmen are making every effort to plan meetings which will be of interest and value to physical education teachers and administrators, health educators, school physicians and nurses, recreation leaders, research workers, students, and general educators. Announcements of some of the special features will be made in the next issue.

Attendance at conventions is a valuable means of keeping abreast with the latest developments in one's profession, as well as affording the opportunity for an interesting holiday from routine responsibilities, and for forming worth-while acquaintance with co-workers from other parts of the country and workers in other phases of the whole school program. The new enthusiasm and new ideas gained at these meetings are well worth the cost of such attendance in time and expense. So let our motto be: Every member of the Association at a convention this spring!

Individual Structural Differences

I SHOULD like, at the beginning, to emphasize the fact that this is not an attempt to present any new scheme for grading posture. It is rather a plea for the individual, that he be related to his own potential best, and not to any aesthetic ideal, to a Venus or to an Apollo.

In the past six years some three thousand freshman and sophomore women at the State University of Iowa have been given routine orthopedic examinations. Though common postural types definitely exist, there are a large number who, due to individual build or structure, cannot be included in any special category. In giving such examinations under pressure of time and numbers, the only way to prevent the examination from becoming more or less automatic is for the examiner to make himself aware of each person as a distinct individual, and to make each examination accordingly a brief individual study. By doing this the value of the examination is definitely enhanced from the standpoint of both the examiner and the student. It is true that in many, if not in most, school situations the setup is not such as to allow the examiner the time to work out for himself the elements of individual differences to which he should be alert in work along the lines of body mechanics from any standpoint. The purpose of this paper, therefore, is to present for your consideration some of the specific details which are of importance both in giving the orthopedic examination, and in posture training and correction.

In order that there may be a common point of departure it does not seem out of place to review briefly the common denominators of good body mechanics in all individuals, those qualities which may be expected regardless of individual make-up. As these qualities remain more or less immeasurable they must be expressed in general terms. The element of balance is primary. Since it is impossible to measure balance accurately, or even to determine all important body points from the exterior, we can only approximate whether each superimposed segment of the body is most efficiently balanced over those below. A common fault of this type is that position of the body in which the hips are thrown forward, and the trunk consequently backward. The head and shoulders may be carried more or less forward. (Ill. 1)

A second essential to good body poise, and one which is not necessarily co-existent with good balance, is that of elevation, a condition which is due, when present, to an easy extension of the spine and lift of the chest, in so far as this is compatible with the bony structure of the individual, and with the absence of strain and of a forced position.

The third requisite for all individuals, regardless of structural build, is good muscle tone. Estimation of this factor is again not without difficulty. Of course the individual who has definitely poor general muscle tone will also show a lack of the two previously mentioned essentials. Two commonly observed indications of poor tone locally are relaxation of the lower abdomen, and undue prominence of the scapulae either at their vertebral borders or inferior angles.

What then are some of the differences to be considered? We are all perfectly aware of the different hereditary types of build—lithe, medium, and stocky—and yet it is surprising how often they are ignored in considering posture. Dr. William Happ, pediatrist, makes the statement that " . . . the failure to achieve better results in posture work is due to the following causes: failure to recognize variations in types, based chiefly on hereditary factors, and the attempt to bring all children to a standard, which is obviously impossible."[1]

A paper presented before the North Central Student Health Association, May 1937, Iowa City, Iowa.

[1] William M. Happ, "Some Notes on the Use of Physiotherapy in Pediatrics," *Physiotherapy Review*, XVI: 4 (1936), p. 147.

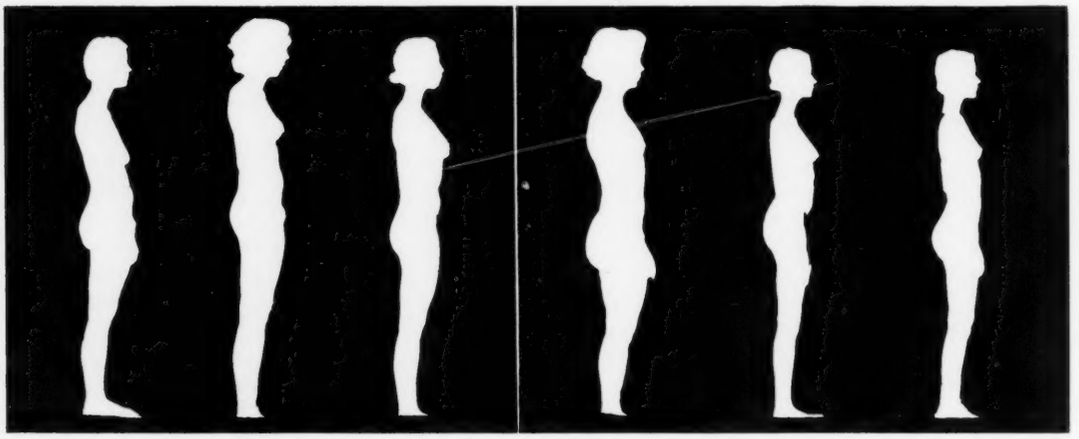

Illustration 1 (three on left): a, poor balance and alignment; b, fair balance, lack of elevation; c, good balance and alignment. 2 (three on right): a, long trunk, normal spinal curves; b, short trunk, lumbar curve slightly increased; c, long trunk, long lumbar curve.

in the Orthopedic Examination

By

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It is essential then that the slender individual of the carnivorous type, often possessing a proportionately long trunk and a greater than average flexibility, should not be set up against the same ideal as the stocky person of the herbivorous type, commonly characterized by a relatively short trunk and neck, and less flexibility in all her joints, nor that either of these should be judged by the exact criterion of the medium type to which most of our bathing beauties, mannequins, and chorus girls belong.

This mention of differences in length of trunk leads logically to some of the common variations in structure in the spine and thorax, the actual shape of which was purposely not included among the common denominators. It is this factor of individual build that demands a wide range of normal. The long trunk may show long, gradual curves in both the dorsal and lumbar regions, or the lumbar curve may be relatively long and the dorsal proportionally short. The short trunk has a greater tendency to show short sharp curves, or at times, a long dorsal and a proportionately shorter, sharp lumbar. Is there any justifiable basis for believing that this may not be normal for that individual when it is accompanied by good balance, alignment, and muscle tone? (Ill. 2)

Teachers of physical education have been criticised by members of the medical profession for many years, and not without basis, for their emphasis on flattening the lower back. Although pelvic control in movement is an important point of emphasis in teaching body mechanics, nevertheless its use as a corrective measure should be limited to those individual cases in which it is needed, rather than being applied as a routine measure in all posture correction.

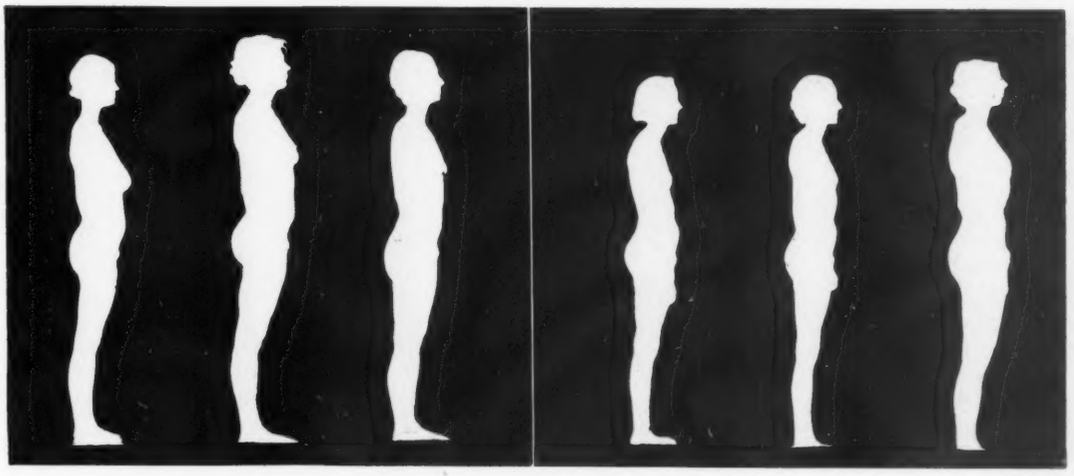
Then too, it is relatively impossible to determine accurately the degree of lumbar curve or of pelvic inclination by any external means. X-ray studies made at the State University of Iowa within the past few years by Howland[2] and Boynton[3] on the position of the sacrum and the lumbar spine in relation to the pelvis show, first of all, that there is almost invariably a distinct difference between the external contour of the lumbar spine and sacrum, and the actual contour as shown in the X-ray. Secondly, these authors have concluded that the degree of lumbar curve and pelvic inclination depend perhaps more on the position of the sacrum with respect to the pelvis than on any other one factor.

From our standpoint it would seem wiser, then, not to be too insistent upon changes in the shape of the spine in this region, except in extreme cases, where there is no doubt as to an excessive degree of hollow. When judging, consider the first fundamental, that of balance. If the lower back and hips are so definitely thrown forward as to bring undue strain on the abdominal wall, or if the weight of the trunk is thrown backward, increasing the strain on the lower back, then emphasis should be placed on realignment and balance, probably involving a certain amount of adjustment in the position of the pelvis and lower back. (Ill. 3)

With respect to the upper back, there are many cases in which the dorsal convexity is easily recognized as being of more than the average depth, and in which little, if any, straightening is possible due to bony limitation of flexibility. Yet in many

[2] I. Howland, "A Study of the Position of the Sacrum in the Adult Female Pelvis and Its Relationship to Body Mechanics," unpublished thesis, University of Iowa, 1933.

[3] B. Boynton, "Individual Differences of the Pelvis and Lumbar Spine as a Factor in Body Mechanics," unpublished thesis, University of Iowa, 1934.



3 (left): hollow back combined with different grades of posture. 4 (right): structural round upper back — a, combined with fatigue posture; b, after two years maximum correction; c, good balance and elevation despite structural condition.

of these cases the general body posture is good when judged according to the criteria listed above. Investigation often shows this to be more or less a familial characteristic. Again are we justified in calling this a kyphosis and in using all the radical measures at our disposal to attempt to straighten it?

It is true that if a child has an hereditary tendency in this direction, it would be advisable to take all possible preventive measures in early years in order that this tendency not be encouraged, and to lay special emphasis during the years of growth on those activities and exercises that would further extension in and strengthen the muscles of the dorsal spine. It is also true that there are many cases of structural round back for which there is apparently no other explanation than that to be found in poor postural habits of long standing. In these instances is it not true that such a condition continues to be associated with poor body mechanics? And every attempt should be made to produce as much correction of the general posture as possible. Needless to say, timeliness is all-important. These individuals are too often examined for the first time upon entering college when it is too late to accomplish a great deal in the way of correction. (Ill. 4)

A type of spine frequently observed is the one in which the convexity, normally limited to the dorsal region, is so long as to include relatively all of the lumbar region, an approximate angle being formed at the lumbo-sacral junction. This so-called "total round back" is always listed as a distinct fault in the traditionally classified postural abnormalities, to correct which an attempt should be made. There is no doubt that a *flexible* total round back is a frequent accompaniment of many poor postures. In these cases correction of the individual's posture results in a more or less normal lumbar and dorsal curve. However there are undoubtedly other individuals who apparently possess this type of spine by virtue of inherent bony structure, since it is co-existent with otherwise good body mechanics.

In working with persons inexperienced in posture analysis I have found that the most common error in considering the spine is that of judging the presence of any degree of dorsal convexity or lumbar concavity a postural fault. Phelps and Kiphuth describe this as normal.[4] Beyond this I have been able to find no substantiation for such a standard.

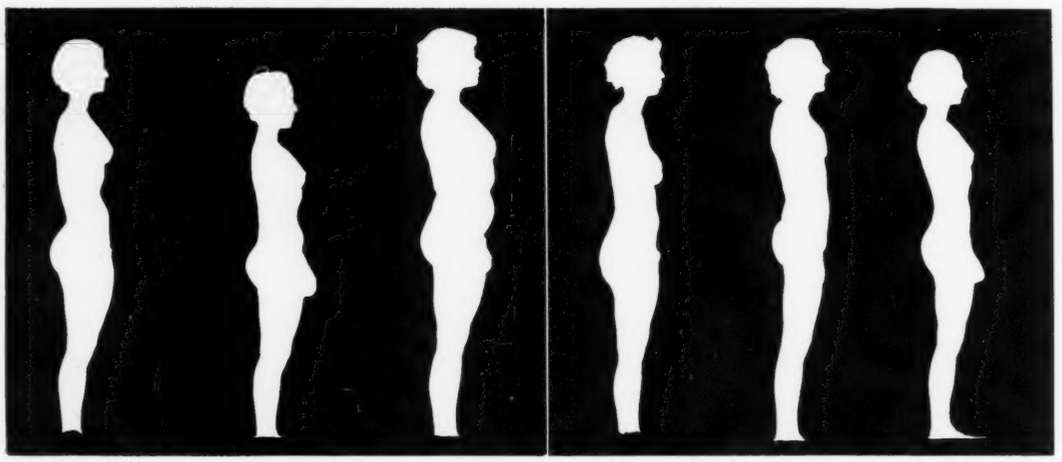
However, there are some individuals who possess what are apparently structural flat backs. It is interesting to note that these are more often than not graded as having a good or excellent standing posture. Unquestionably they will give an appearance of "straightness." Here again, when the general requisites for good posture are present, are we justified in trying to force a hollow where no hollow exists, or a roundness where little if any apparent roundness exists? To date there has been no proof that a flat back in these cases causes any ill effects. Doctor Norman Miller some years ago worked on assumption that such a condition was more conducive to menstrual disturbances, but he finally reported that he had found no evidence to substantiate his hypothesis.[5] A decrease in the shock-absorbing function of the spine and an accompanying increase in nervous strain seem logical, yet remain still to be proven. One frequently observed characteristic of these individuals, present also in the structural total round back type, is an altered abdominal contour. The upper abdomen in so many cases is less prominent than the lower, despite a state of good tone. The chest is in good position, and is the most prominent anterior point. (Ill. 5)

Mention was made earlier of individual differences in shape of the thorax. There are the wide, shallow chests, the narrow, deep chests, the true funnel chests, as well as those that comprise the majority, distinguished by neither bony prominence nor otherwise, whose thoracic index is approximately normal. These structural deviations from normal should be considered in judging the individual. (Ill. 6)

Shoulder and head and neck position are closely related to position and structure of the spine and thorax. A structural round upper back almost invariably gives the appearance of forward head regardless of the

[4] W. M. Phelps, and R. J. H. Kiphuth, *The Diagnosis and Treatment of Postural Defects.* (Springfield: Charles C Thomas, 1932.)

[5] N. F. Miller, "Posture and Dysmenorrhea," *Journal of Obstetrics and Gynecology,* May 1934, p. 684.



5 (left): shows common abdominal conditions met with in total round, flat back, and overweight postures. 6 (right): shows varying shapes of thorax, the first two having true funnel chests.

true line of the cervical spine. Differences in soft tissue characteristics of the anterior neck and chin are often misleading. When examining it may help to consider (1) the posterior neck line, (2) the angle made by a line from the chin to this line, and (3) the relation of the tip of the ear to the mid-point of the thorax at shoulder level.

In judging shoulder position, two factors commonly considered and often misleading are the distance between the scapulae, or the distance of each from the spine, and the degree to which the scapula is to be seen "broadside" when observing a person directly from the side. The authors of Dr. Lowman's first book classify scapular deviations in terms of 1st, 2nd, and 3rd degree, depending upon their distance from the spine.[6] However, consider again what was said above with respect to individual variation in shape of dorsal spine and thorax. Is it logical to expect the broad thorax to show the same absolute distance between the scapulae as the narrow one? Other factors also enter here, among which are the proportionate width of the scapula, the length of the clavicle, etc. However, I have seen individuals with apparently slightly forward shoulders in whom the position of the scapulae could not practicably be changed due to a structurally narrow thorax. And there have been many whose scapulae were in the 2nd or 3rd category according to Lowman despite the fact that the whole posture of their trunk was excellent.

From the same standpoint the individual is to be observed who has a narrow, deep thorax with sharp costal angles so that the posterior aspect of the scapula faces more lateralward giving the appearance of forward shoulders. It should be remembered that evidence of poor muscle tone in this region is an *asymmetrical* prominence, whereby either the vertebral border or the inferior angle protrudes unduly. And finally there are those in whom the scapulae are well-placed, but of such a degree of prominence over their whole area that they tend to give the appearance of increased roundness of the upper back when viewed directly from the side. Whether this is due to a greater than normal bony thickness, or to a more than average amount of soft tissue underneath, it should at least not be mistaken for a fault of posture.

Little has been said about the abdomen. Perhaps due to the very fact that this is the most vulnerable spot from the postural viewpoint many examiners are too ready to judge the slightest degree of prominence as evidence of relaxation. First of all it is important to remember that absolute flatness is not to be desired. The tall slender person with a minimum of abdominal fat may show a flat anterior contour here, at times, despite the presence of some relaxation. However, those of even medium build show a slightly rounded contour due to the presence of a normal fat layer. The question of distinguishing between a normal slight prominence from this cause, and one which is the result of a greater or lesser degree of abdominal relaxation goes back to the relation that should exist between the prominence of the lower end of the sternum and the lower abdomen. Simply stated, the *lower* abdomen should *not* be the most prominent part of the body anteriorly. Although handling the person being examined should be avoided as much as possible, it is often a help to palpate the abdominal wall. When there is a relatively thick layer of fat, this may best be done over the lateral areas where the fat layer is naturally less thick. A muscle in good tone has a definite feeling of firmness.

In this connection I should like to mention the undesirability, especially in working with children, for it is there that I have seen it most, of emphasizing or even permitting *extreme* flattening of the abdomen. When this is forced, most of the hollowing effect is in the upper abdomen, the sub-costal region, which involves definite interference with the free functioning of the diaphragm. Then too, although any one of us realizes that such a position could not be maintained over any period of time, we cannot deny that it is poor educational procedure to send the child out with the idea that, much as he hates the feeling of stiffness that that position gives him, it is the meaning of "good posture." By teaching correct use of abdominal muscles as well as strengthening them, and by placing emphasis on elevation without excessive strain, it is possible to obtain the desired correction.

Nothing has been said about asymmetrical conditions such as high shoulder, prominent hip, or a slight lateral deviation of the spine with little or no displacement or rotation. When these are present in cases of generally poor posture, correction of the latter is usually sufficient. The very frequency of a slight degree of asymmetry in the spine itself leads us to wonder if certain factors such as the size and disposition of the viscera do not contribute to this condition.

Finally there is the question of feet and legs. So much has been written on the subject of the lack of any relationship between height and strength of longitudinal arch that little need be said here from that standpoint. The arch which is of firm, even contour, whether low or high, is not generally considered relaxed per se. However, the foot with the prominent scaphoid, and the heel rotated inward, is a definitely weak foot when considered from the functional standpoint. Pronation is judged both by the undue prominence of the scaphoid about an inch in front of and slightly below the internal malleolus, and by the outward deviation of the mid-line of the heel. There is no doubt of the difficulty of estimating this in cases of slight degree.

There are also a few other cases in which conditions may be met which are apt to result in wrong conclusions unless they are taken into consideration. For instance, consider the individual with bowed legs. A slight prominence of the inner aspect of the ankle in relation to the lower leg is almost inevitable, and the failure of the axis of the heel to coincide

(*Continued on Page 122*)

[6] C. L. Lowman, C. Colestock, and H. Cooper, *Corrective Physical Education for Groups*. (New York: A. S. Barnes & Co., 1930).

Care of Gymnasium Floors

By

HAROLD W. COPP

Chairman, Health Contributing Agencies
Kalamazoo Public Schools

THE care of the gymnasium floor a few years ago was always largely in the hands of the building superintendent and the janitor or custodian. The physical director was not very much interested in the care of the floor unless perhaps when the floor was not satisfactory for use. A few physical directors experimented with special methods for keeping down the dust and like problems, but it is only in recent years that the physical director has been looked to as an expert in the care of gymnasium floors as well as an expert in the activities that are to be conducted thereon.

Whether the care of the gymnasium floor is the immediate concern of the physical director or not, he should have some knowledge of the problem and be ready to lend assistance or suggestion when called upon.

Proper Floors and How to Care for Them

It is the plan of this paper, then, to set forth briefly some facts regarding the proper type of floor for a gymnasium and to present various methods for taking care of the floor after it is in use. Much of the material on care was secured through the kindness of those manufacturers and laboratories specializing in preparations for gymnasium floors. Some of the material was reported in the journals of our profession.

Construction That Will Allow for Proper Cleaning, 1923

In 1923, the Society of Directors of Physical Education in Colleges prepared a committee report on construction and material equipment of physical education buildings.[1] Their recommendations regarding the flooring are as follows: Special precautions must be taken in the design and selection of material for the floors. If the gymnasium floor is laid directly on the ground, special damp-proofing must be employed and there must be an air space between this damp-proofing and the finished floor to prevent the rotting of the timbers. If there are rooms under the gymnasium, this damp-proofing can be dispensed with and the best method is to lay sleepers on top of the floor arch, then the rough flooring, then some good building paper and finally the finished floor.

An excellent substructure used in many buildings recently is the "slow burning" construction produced by a build-up of boards two inches thick and six inches wide laid close together on edge. Should the construction be non-fireproof, special precautions must be taken that the timbers of the floor construction may shrink equally and not leave bumps on the floor.

As to material of the floor, experience has shown that an edge grain flooring must be used to prevent splintering, that it must be tongued and grooved, hard, and in long lengths. The best all-round wood is high grade maple, and the narrower the strips, the less the shrinkage and the closer the joints. The flooring should be laid by the best floor layers available. There are patent floors of wood blocks laid on end in pitch, somewhat like a street pavement. These floors have merit but not enough to be preferable to a good maple floor. A wood floor should be finished smooth with a sanding machine and not scraped by hand, as hand scraping has a tendency to pull up the grain in spots. It is the practice in some parts of the country to paint the floor boards on the bottom, sides, and ends with a thick lead and oil paint before laying; this is excellent practice but not necessary. The important thing is that the flooring should be brought on the job absolutely dry.

Floors laid in a damp building invariably swell and when the building dries shrink, leaving warped boards and wide cracks.

Construction Suggestions, 1924

Strayer and Engelhardt in their book published in 1924 say about floors that they should be in good condition, without cracks, checks, splinters, loose boards, or projecting ends. The standard floor is hardwood, durable, well-joined, and not dust-retaining; or cement overlaid with battleship linoleum.[2]

Construction Suggestions, 1937

Although oak, pine, beech, and birch are all used, maple floors are probably the most satisfactory for gymnasiums. In such locations, however, the thickness should be not less than $1\frac{1}{16}$" and should show not over $1\frac{3}{4}$" on the face, to minimize the shrinkage and present as smooth and level a floor as possible.

It is very important that floors in rooms used for physical exercise be elastic and not in any sense dead, as would be the case with such materials as tile or terrazzo.

Floor Oil as a Dust Preventive

Having set forth various views regarding the construction, let us proceed to some of the treatment methods. As early as 1914 the *American Physical Education*

[1] *Physical Education Buildings for Educational Institutions*, Part I: "Gymnasiums and Lockers," prepared by the Committee of the Society of Physical Directors in Colleges, (New York: Office of the Building Bureau, 1923).

[2] Strayer and Engelhardt, *Standards For High School Buildings*, Bureau of Publications, Teachers College, Columbia University, (New York: 1924), p. 40.

Review reported a very interesting experiment on using floor oil as a dust preventive. The technique followed was thorough and complete. However, only the introduction to the experiment and the conclusions will be reported here. The introduction reads as follows:

The problem of dust prevention is one of considerable importance. This is particularly true of the classroom where, during physical exercises of the pupils, clouds of dust are raised into the air. With this problem in mind, Dr. C. Ward Crampton, Director of Physical Training in the Public Schools of New York, suggested the use of floor oil, and asked that tests be made to determine the efficiency of a high-grade floor dressing as a dust preventive. With this end in view, the writer undertook the following experiments, realizing the importance of the problem in general, as well as its special application to the hygiene of the classroom.

The tests were conducted in Public School No. 42 on January 16, 1914. The oil had been applied to the floor on November 28, 1913, and not thereafter. Thus the dressing had remained on the surface of the floor fifty-eight consecutive days without renewal. The oil had been added carefully so that no excess remained on the surface of the floor after treatment. Four rooms of like dimension were selected; two of these had, and two had not, been treated with oil.

The oil used throughout the tests was the finest quality of floor dressing supplied by the Standard Oil Company of New York, and is called Standard Floor Dressing. The following tests were made:

1. Before and after conducting physical exercises, both in rooms that had, and in others that had not been treated with the floor oil.
2. Before and after these rooms had been swept.
3. On experimental boards (artificial floors) kept under controlled conditions in a large bell-jar.

From this experiment the following conclusions were drawn:

1. Bacteriological examinations of the air of four classrooms were made before and after conducting physical exercises. Two of the rooms had been treated with floor dressing. while two had been left untreated. These tests showed:

a) That there was less dust in the treated than in the untreated rooms even before the floors were disturbed, though the differences were not marked.

b) That the oil was efficient in causing more than 80 per cent of the dust to adhere to the surface of the floors disturbed by physical exercises.

2. Similar tests made before and after the rooms had been swept indicated an efficiency of 85 per cent. Thus, the oil is valuable in protecting not only the health of the teachers and students, but also that of workmen employed to clean the rooms.

3. Bacteriological tests made on experimental boards (artificial floors), under controlled conditions, verified the above conclusions and indicated an even higher percentage of efficiency (91 to 100 per cent).

4. Wherever the raising of dust from the floor might be injurious to persons, merchandise, etc., the use of floor oil is urged as a simple and efficient preventive.[3]

Modern Surfacing

It is a far cry from this experimentation in the care and treatment of floors to the advanced methods and materials in use today. Perhaps the greatest advance has been made in the treatment of gymnasium floors. Here the surface is subjected to a wear and tear and pounding that no other surface suffers, and yet to meet requirements the surface must always be clean and not at all slippery. Game requirements add the necessity of including court markings that present an additional problem.

It has long been accepted that any floor must be properly sealed. This is the first step in treatment following the scraping and sanding. The sealing varies with the type of wood. Oak floors need a supplementary paste filler before sealing and the more porous pine flooring requires three coats of sealer to two for beech, birch, and maple. When this sealer (which should be a slow oxidizing oil with not more than a 50 per cent solid gum content) has been given at least 24 hours for each coat to dry, the floor should be steel-wooled in preparation for the finishing.

Finishing.—Gymnasium floors receive severe punishment and hard wear. Waxing would be the ideal treatment from this standpoint, but would not provide the non-slippery surface needed. Therefore gymnasium floors tax the only other alternative, a phenolic resin type finish, bakelite, to the limit. A building superintendent recently said, "More floors have been scrubbed away than ever wore away." Bakelite challenges this difficulty in that it is weather resistant, waterproof, alkali resistant, resistant to 195 proof alcohol, is not affected by dilute acids, will not rubber burn, is not slippery, and will retain its gloss.

Bakelite may be purchased in trade preparations where the percentage of the true bakelite resin varies from 10 to 100 per cent. Over 50 to 60 per cent bakelite leads to cracking and flaking and is a very difficult preparation to spread evenly. Lower than 50 per cent bakelite is likely to leave the finish open to rubber burning and too rapid wear.

Applying.—Granted that the floor has been properly sealed, two men can apply the finish effectively as follows:

The first man spreads on the bakelite finish with the lamb's wool applicator and is followed closely by the second man, who works out the applied finish at right angles to the direction it was applied by the first man. This levels out all blow holes, bubbles, and unevenness, and prevents the formation of "pimples" on the floor which cause the usual uneven condition of many floor finishes. The pimples, if left, retard dry mopping operation and gather dirt. They will squash down, in time, and show as spots. Lines for court markings ought to be painted on after the first coat with a good grade auto enamel.

The maintenance of bakelite finished floors is very simple, consisting of dry mopping daily with a cotton strand mop made by clamping five mops next to each other between two pieces of ¾″ pipe about 30″ long, and putting a tee in the middle of the upper pipe for the handle which is made from ¾″ pipe also. This mop is treated with just enough volatile cedar oil to polish,

(*Continued on Page 124*)

[3] Wallace A. Manheimer, "Floor Oil as a Dust Preventive," *American Physical Education Review*, XIX (December, 1914), p. 625.

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The above books will be sent for examination to instructors who will consider them for class use. Are you on mailing list to receive announcements of new books as they appear?

Comment and Previews

SOME of you may have noticed that we have begun to enjoy a new birthday. When your copy-writer prepared the January advertisement, it was with some feeling of awe that he put under our name "Publishers for One Hundred Years." The story goes that the first hundred years are the hardest, but I don't believe it when one works with people who make education their life work. There is a great deal of satisfaction in helping to create better education for our children and at the same time be able to make one's bread and butter. Just as A. S. Barnes when he founded the firm in 1838 hoped to bring a new and vital force in the field of education by publishing books that would aid the teacher in teaching sound education, so do we hope to be the means of offering you material that will further the highest of educational aims.

WE HAVE some new books in the offing about which we are quite excited, and you, too, we believe, will find some of them to your liking. The first is a single edition of RHYTHMS FOR CHILDREN by Mary S. Shafer and Mary M. Mosher. These series of rhythms were formerly issued in three separate paper pamphlets. This new edition contains new rhythms together with all the old ones. For full description see opposite page. Late in March will come GROUP INSTRUCTION IN SOCIAL DANCING by the popular and well-known teacher, Edith Ballwebber. This is especially for the teacher. The carefully planned feet diagrams, together with the explicit instructions, make it *the essential book* teachers have been looking for.

About the same time we will publish PLAY AND MENTAL HEALTH by John E. Davis, the author of *Recreational Therapy for the Mentally Ill.* This book is prepared particularly for the teacher and embodies sound principles and practice. Early in April (and maybe before) GRADED LESSONS IN FUNDAMENTALS OF PHYSICAL EDUCATION by Gertrude M. Baker, Florence M. Warnock and Grace D. Christensen, will be ready. This is a new kind of textbook and offers a carefully planned program for Grades One to Six. Following this will come PHYSICAL EDUCATION ACTIVITIES FOR HIGH SCHOOL GIRLS by Therese Powdermaker, which will be a boon to teachers who have to search now through several books for activities for their pupils. It is a "must" book for high school teachers. Announcement of other books will be made next month.

Correction.—In last month's advertisement your copy-writer made a stupid error. In listing *The Contents* of Dr. Sharman's excellent book MODERN PRINCIPLES OF PHYSICAL EDUCATION he inadvertently listed *The Contents* of his earlier book THE TEACHING OF PHYSICAL EDUCATION. A copy of our catalogue gives the correct contents and we will be glad to send one to you post-haste. If you desire additional copies of our catalogue for distribution among your students, write attention of *College Department.*

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The Alabama Coordinating Plan

by JESSIE R. GARRISON

Supervisor of Health and Physical Education
Alabama State Education Department

SINCE the merger of the American Physical Education Association with the Department of School Health and Physical Education of the National Education Association, resulting in the formation of the Association for Health and Physical Education, a department of the N.E.A., it is readily seen that this new Association can gain greatly by having the same plan of organization carried out in the various states. Alabama has made an effort to reorganize all activities in school health, physical education, and recreation in the light of the new National Association's organization. This state is particularly well suited to such an adaptation of new ideas, since its curriculum revision program, which is now in its third year, welcomes all practical suggestions and plans for improving instruction in the public schools.

The first step taken by the physical and health education leaders in Alabama was to invite doctors, nurses, nutritionists, and others vitally concerned with public welfare to the sixteen October district playday-conferences for high school girls.

THE next and, to date, most important step was a conference on School Health, Physical Education, and Recreation, held on Monday and Tuesday, December 6 and 7 in the Whitley Hotel, Montgomery. The purpose of the conference was "to promote finer coordination between state and local agencies in improving instruction in health, physical education, and recreation." The invited personnel included the President of the American Association for Health and Physical Education; representatives from the State Departments of Education, Public Health, Public Welfare, and Labor; specialists in the fields of health, physical education, and recreation; heads of departments of physical and health education in all the colleges of the State; and hostesses to the fall district playday-conferences and chairmen of women's committees of the Alabama High School Athletic Association.

Dr. W. Morrison McCall, Director of the Division of Instruction, State Department of Education, presided at the meeting, and the writer led the discussion.

Superintendent A. H. Collins welcomed the group to the city. Following his brief address, Dr. McCall gave a discussion of the state program of curriculum revision, and the writer gave a brief over-view of the state physical and health education program.

The main address of the conference was given by Dr. C. H. McCloy, President of the American Association for Health and Physical Education, who spoke on "The Significance of the Recent Affiliation of the A.P.E.A. with the N.E.A." Dr. McCloy explained that the new organization contained all the features of the old American Physical Education Association and enriched the sections of health education and recreation. Since health education and recreation are so closely allied with physical education, it is obvious that all these agencies can work more effectively if they are a part of a single organization. It is only through cooperation, with no overlapping and repetition of duties, that the fullest program of physical and health education and recreation may result. The National President showed how each state can organize its agencies so that each carries out the particular function for which it is best suited. He emphasized the need for more research, more individual thinking, cooperative action, social insight, and less dependence on the consensus of opinion, which is not always accurate. Now that this new Department has been welcomed as a member of the N.E.A., it is the duty of each person connected with physical and health education and recreation to take an active part in the organization and to endeavor to keep abreast of professional trends. Briefly, each person should be willing to change methods to suit changing conditions and needs.

Dr. J. N. Baker, State Health Officer, introduced members of his staff who gave the contributions of the State Department of Public Health to the welfare of school children. These were Dr. B. F. Austin, Director of the Bureau of Hygiene and Nursing, Dr. A. M. Shelamer, Field Adviser on County Health Organization, Dr. J. J. Repa, Chief of the Division of Child Hygiene, and Dr. R. T. Crawford, Chief of the Division of Oral Hygiene.

The need for cooperation between the State Department of Education and the State Department of Public Welfare was stressed by Miss Loula Dunn, Commissioner of Public Welfare.

Mrs. Daisy Donovan, Child Labor Inspector, State Department of Labor, showed how the Department of Labor may cooperate with the various state agencies to provide better programs of physical and health education and recreation for children.

OTHER key specialists who spoke on the program were Dr. W. D. Partlow, Superintendent of the Alabama Hospitals and the Partlow State School; Miss Estelle Bozeman, Instructor in Alcohol Education; Miss Zoe LaForge of the Jefferson County Board of Health;

(*Continued on Page 118*)

Recreation Leadership as a College Course

By
RUTH HILL WOOD
Connecticut College for Women

IT MAY be fairly expected that a college graduate will have contributions to make to the life of a community. The new leisure has given added impetus to the already growing awareness of the value of play and recreation. Government appropriations are enlarging facilities for recreation. What is needed is more good volunteer leadership to help organize activities.

In college, students have an unequalled chance to try many kinds of recreational activity. There are opportunities to do choral singing, dancing, sports, publishing, dramatics, and debating. A student who has taken part in such activities, who has a real understanding of the value of play and recreation, and some experience in leadership, has an important contribution to make at this time. It may be as a member of a recreation board, a promoter of better play areas in new housing zones, member of the Girl Scout Council or similar group, teacher-adviser on extracurricular activities, organizer of tournaments at the country club, or member of a community festival committee. It may be as a mother who understands the changing interests of her own children, who knows from actual experience in guiding play activities of children, the secret of being at once playmate and adviser.

RECREATION Leadership" at Connecticut College is a six-point course offered by the Department of Physical Education to all students. It may be assumed that a student of physical education should receive as part of her training some knowledge of recreation work. A study of this vital present day movement is important, however, not only to those students who are majoring in physical education but also to students who contemplate social work, religious education work, teaching, or becoming active members of a community. It is in the value of such a course for the college student who is not majoring in physical education that I am interested here.

Naturally, it is not possible in three hours a week to do justice to the many phases of the subject. What it does aim to do is to give the student a broad understanding of the development and present status of the recreation movement; the philosophy of play with its special application to present day needs; a study of the promotion of play; a study of age and sex interests; of leadership; and something of the organization and administration of play areas. Half the work is theoretical, the other half almost entirely practice teaching.

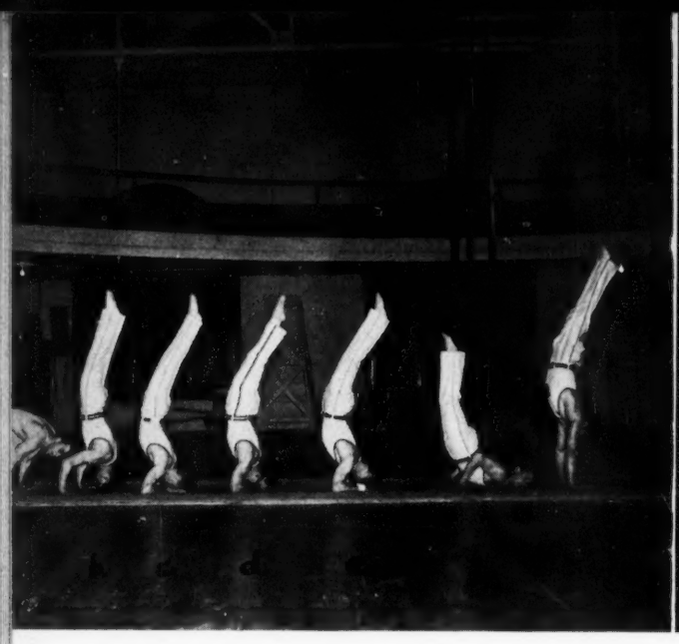
From the extensive material available, and with schools, camps, clubs, and playgrounds in mind, the students are given a sample of many types of activities which are not too complicated to be quickly assimilated for practice teaching. Such an acquaintance is made with campcraft, handcraft, folk dancing, simple track, tumbling, and games. There are games for all ages and places: games for water and snow; for parties; for scouts; games for the handicapped; games which lead up to certain sports; singing games. A games notebook is kept as well as a bibliography containing sources of material on subjects included in the course and on other branches of the recreation field such as sports, story telling, community singing, plays, and festivals. At least twelve hours practice leadership in organizations of the community are required. Many students work in social centers throughout the year.

The theoretical study of recreation ties up with the modern industrial system, juvenile delinquency, unemployment, emergency recreation programs; with ways of handling groups, interests of people, and personality; with school centered programs, character building agencies, educational aims, and philosophies of living.

IMPORTANT as this study is in itself and as a background for the student's practical contact with leadership, it is the opportunity to put this knowledge into practice which makes the course of singular value. In "Recreation Leadership" the student not only analyzes personality but tries to improve her own personality and ability to influence people. When she becomes aware of the personality traits which the play leader is trying to help the child develop, and when she realizes to what extent her qualities are reflected in the child, she begins to be truly self critical. Personality defects, such as insincerity, lack of sense of humor, conceit, tactlessness, lack of self-reliance, and poor sportsmanship are obvious.

For such leadership development a class of ten to twelve is best because it is large enough for group activity yet small enough for real give and take within the group. Willingness to assume responsibility is encouraged. It is an established fact that one learns through doing and that the value of practice teaching is significant. In the work within their own group followship and leadership are interchanging. Since the relationship between the leader and member of the group is spontaneous and natural in play, it is a valuable field for initial contacts with leadership. Besides, most of the students who elect the course have a natural inclination toward physical activities. Many have a start along at least one line of interest. Some girls are interested in summer camps, some in settlement work, playgrounds, or teaching chil-

(Continued on Page 115)



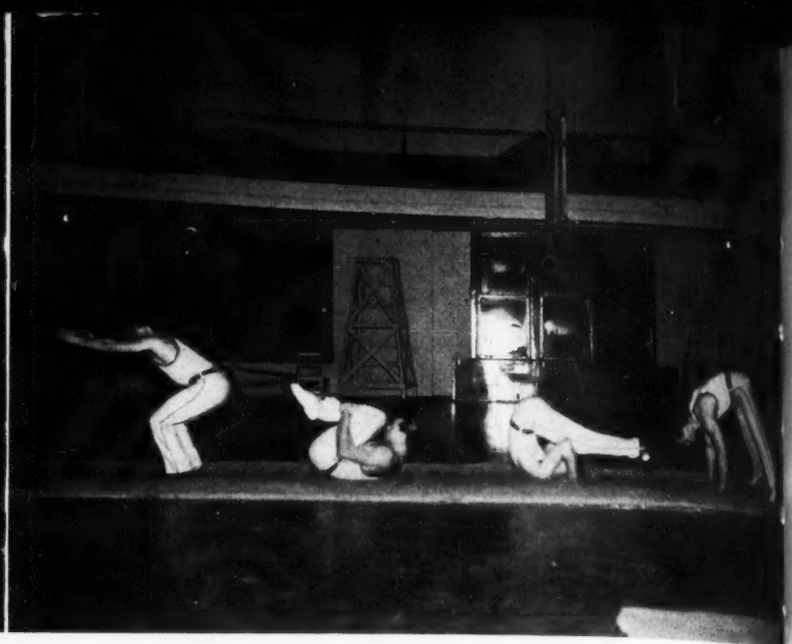


Illustration 1, left: a, squat balance; b, head balance; c, elbow balance; d, elbow balance; e, forearm balance; f, chest balance; g, hand balance. Illustration 2, right: forward roll.

Elementary Balancing and

THE generally accepted objectives of physical education are the development of organic health, the development of neuro-muscular control, interpretative and emotional development. Moreover, all participation in the activities of the program should be governed by accepted social and moral standards. It would seem, then, that tumbling as an activity under wise leadership should fulfill all of the requirements from the standpoint of attaining the objectives of physical education.

Part I. Essential Fundamentals

The information in this article is intended to lead up to the advanced tumbling.[1] Therefore, descriptions will be made of the elementary tumbling tricks and in addition hints will be given in regard to equipment, attire, falling cues, and technique of teaching.

Equipment.—Mats usually are available in two sizes: 5 x 10 ft. and 5 x 20 ft. Perhaps the 5 x 20 mats are more practical because several can be tied together for the practice of routines by the more advanced members of the class. If separate mats are used they should be placed so as to prevent slipping.

The mats should be kept free of wrinkles and bulges in order to prevent ankle or leg injuries. The mats should be inspected regularly for tears in the canvas and for breaks in the padding, and for hygienic reasons should be cleaned regularly. No person in street attire should be allowed on the mats. The mats should be carried by the handles provided for that purpose and should not be dragged on the floor. When in use, the smooth surfaces of the mats should be on top and the tufts should be underneath.

In stacking the mats the smooth surfaces or tops should be placed together and the surfaces with tufts, or bottoms, should be together. Thus the tumbling surface is kept clean.

Attire.—Short trunks and sleeveless jersey seem to be satisfactory as a uniform. The habit of wearing a light shoe should be acquired even by the beginner so that he will be better protected in case he wants to try more advanced tricks later on. On advanced tricks the barefooted performer may injure a toe, an ankle, or an instep.

Falling Cues.—1. If possible, fall with the hands and feet pointed forward!

2. Never lay-out when falling!

3. Give yourself to the fall!

4. Never fall with your back toward the mat!

5. Try to look in the direction of your fall!

6. Try to roll out of your fall if possible!

7. Never change your mind after you have started a trick!

The Technique of Teaching Tumbling

The beginner who is interested in tumbling probably will find that one of the greatest assets he possesses is the willingness to learn correctly. The student does not know the difficult path to advanced balancing and tumbling; the coach, however, does know, and generally speaking, the most satisfactory results should be obtained by following the orders issued by the coach. Each trick is closely related or dovetailed with another, and the experienced coach should strive to make that point clear to the beginner. There is a reason for the methods of teaching that are employed by the wise coach, and the student who follows the hints and suggestions offered by the coach should make satisfactory progress.

The coach should suggest, for example, that in learning the head-balance the brunt of the body weight be carried by the hands. While mastering the head balance, the student may learn to raise his head and move

[1] For a thorough treatment of advanced tumbling, consult the series of articles by the author in *The Athletic Journal*, February, March, and April, 1937.

it back and forth, thus getting the "feel" of relying upon the upper back muscles (rather than the lower back muscles) for the hand-balance. Hence he may see how he can work from one balance into the other, or how one correct position helps to work into the next desired position. Furthermore, the coach should stress the importance of the properly arched back which should contribute to good form as well as to greater ease in the accomplishment of new stunts.

Knees.—Straight knees and pointed toes, aside from being good form, permit the legs to be controlled as one unit rather than as separate parts as legs, thighs, ankles, etc.

Arms.—The correct use of the arms in the capacity of levers in balancing or as pushers in hand or head springs,

g and Tumbling

HARTLEY D. PRICE

Assistant Professor of Physical Education and Varsity Gymnastic Coach, University of Illinois, gives advice for both coach and student tumbler. The helpful "progression" photos were posed by members of the University of Illinois Gymkhana Troupe.

or as pullers in kips, or as throwers and lifters in somersaults, should be stressed by the coach.

Eyes.—The eyes should be kept open; the simplest trick or the most difficult presents less hazards if the floor is visible; timing is judged with more accuracy, and finesse in performance is more pronounced.

Head.—The use of the head is exceedingly important both in balancing and tumbling. The relationship that the position of the head bears to these stunts should be pointed out to the learner.

Leg Spring.—The importance of the leg spring should be stressed even when performing the simplest forward roll because with advanced work, the leg spring may determine whether the trick is accomplished with confidence and finesse or whether it is finished more or less haphazardly.

Repetition.—Repetition is necessary. The student should execute at every practice such tricks as he has acquired; he should strive constantly for good form; he should keep before him the requirements of good tumbling or balancing. Such repetition should enable him to acquire the "push" that is needed in the arms, the spring in the legs, the correct use of the head and the "feel" of the proper arch. Perhaps a short list of tricks will help the beginner.

Suggested List of Tricks.—The various tricks that are suggested are classified into three groups as follows:

Tricks for Developing a Good Arm Push
1. Handspring
2. Headspring
3. Neck snap
4. Back roll
5. Cartwheel

Tricks for Developing a Good Spring in the Legs
1. Running high dive
2. Running long dive
3. Broncho kick
4. Jumping exercises
5. Leg exercises

Tricks for Developing a Good Arch
1. Head balance
2. Elbow balance
3. Tiger bend
4. Crab
5. Hand balance

Spotting or Guarding.—Perhaps the beginner finds a decided deterrent in the falls and bumps which may accompany his efforts. Correct teaching, and careful spotting, however, should overcome such a difficulty, and should permit the beginner to proceed with a minimum of discomfiture.[2]

Part II—Stunts for Beginners

Tumbling and balancing stunts comprise the approach to a course on the apparatus. Tumbling and balancing contribute to the development of coordination, and the student should be able to proceed with confidence and safety since he probably will be able to take a fall properly if the emergency arises.

Classes should be organized in squads of eight to ten men. Such a plan allows for individual differences and should encourage the development of leadership in the better performers, who otherwise might lack interest in an elementary course.

The beginner may be conditioned for tumbling with various forms of jumping and leaping. Another effective learning activity is one in which animals such as seal, kangaroo, crab, etc., are imitated. Described below

[2] See "The Art of Guarding or Spotting" by the author in the March, 1937 issue of the JOURNAL OF HEALTH AND PHYSICAL EDUCATION.

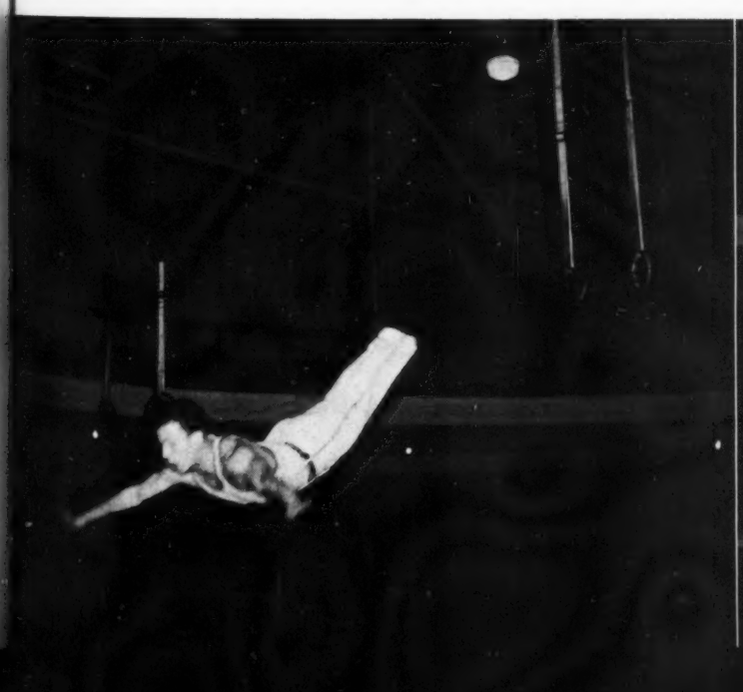


Illustration 3, left: long dive. 4, right: backward roll with momentary hand balance and snap down.

are a number of the stunts that may be taught in an elementary class in balancing and tumbling.

Elementary Balancing

Squat Balance.—Place the hands on the mat, shoulder width apart, fingers spread and pointing forward, and the knees slightly bent. With the head up, lean forward and support the weight on the arms; place the knees on the outside of the arms at the elbows; point the toes. When the feet come off the floor the performer should be looking straight down at the floor. (Ill. 1*a*.)

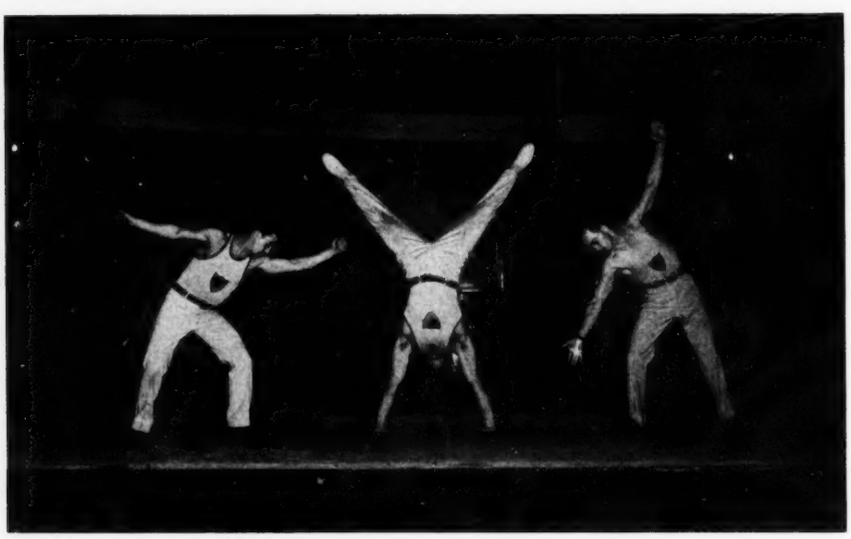


Illustration 5: Cartwheel.

Squat Balance with Knees Inside of Arms.—Execute the same as an ordinary squat balance except that the knees are held at the elbows inside the arms. This is a good exercise in drilling for the hand balance.

Elbow Balance.—Place the forearms and hands flat on the mat, hands together, elbows about shoulder width apart, forehead between the hands. Raise the hips to the balance point, bring the feet up together and keep the legs straight, the toes pointed, and the back arched. Keep the weight on the elbows. In all such balances, correct form demands that the legs be kept straight, the feet together and the toes pointed, with the heels in line with the back of the head. (Ill. 1*c*.) This stunt also may be done with the head in the hands with the palms up. (Ill. 1*d*.)

Forearm Balance. — Execute the same as the elbow balance except that the forehead is raised off the mat; the brunt of the weight is carried on the forearms and hands. The base is an equilateral triangle formed by the hands and elbows. An endeavor should be made to lift the chest up so that the upper arm is almost at a right angle with the forearm. Promising hand-balancers should execute a forearm balance with their arms parallel to each other. In this way they are ready to press from a forearm to a hand balance. (Ill. 1*e*.)

Chest Balance.—Fold the arms, turn the head to the side and balance on the chest and arms. (Ill. 1*f*.)

Head Balance.—Make an equilateral triangle with the head and the hands at the angles. With the hands, grip the mat and place the forehead with the hairline on the mat. Throw the feet up, arch the back; place the heels in line with the back of the head; keep the legs straight, the toes pointed, and the back arched; keep the weight on the "heels" of the hands. (Ill. 1*b*.) The head balance with the arms folded is performed similarly to the head balance. In this case the elbows bear the brunt of the weight.

Hand Balance.—The hands should be arched, shoulder width apart, fingers spread grasping the mat, shoulders ahead of hands, elbows and shoulders locked, head back, back arched, legs straight and toes pointed, for correct form in the hand balance. Swing up to the balance one foot at a time and control the balance with the hands and the shoulders; request assistance at first in order to get the feel of it. (Ill. 1*g*.)

Elbow Lever.—While in a kneeling position, lean the trunk forward, place the arms under the body, the hands on the mat, the fingers pointed toward the feet; bring the elbows close together as the weight of the body rests on the arms; push forward with the toes and raise the head bringing the body to a horizontal balance on the hands.

Elementary Tumbling

Forward Roll.—Start from a squat position, with the tips of the fingers touching the mat. Lean forward, catch the weight on the hands, and at the same time spring simultaneously from the balls of both feet and raise the hips. Tuck the chin on the chest and bend the arms enough so that the nape of the neck touches the mat; straighten the legs as they leave the mat. After the tuck has been made, grasp the shins with the hands in order to bring the body to an erect position. Variations of the forward rolls may be: without the use of hands; feet crossed grasping toes; right or left leg up, arms between legs and grasp ankles from the outside; forward roll with a running start. (Ill. 2.)

Long Dive.—Take off with both feet and dive forward for distance; land on the hands; execute a forward roll and finish in a standing position. The body follows an arc rather than a line parallel to the floor. Hold the head back, the arms straight, and the legs fully extended. Keep the arms straight until the hands hit the mat at which time tuck the head so that the nape of the neck comes in contact with the mat. (Ill. 3.)

In order to avoid injury it is important that the performer increase the distance of the dive slowly. The dive may be practiced over one man in the kneeling position. As progress is made more men may be added. If dummies or mat-rolls are available, use them instead of individuals. The take-off should be about twelve

inches in front of the mat-roll or first man.

High Dive.—Spring from both feet; reach up over the object to be cleared and loop the body over it. At this stage of the stunt, increase the arc of the body, but reach forward and under toward the mat; keep the arms straight; land on the hands; tuck the chin on the chest and execute a forward roll. Dummies or the regular jumping standards with a white cloth tied on the cross bar may be used effectively.

Backward Rolls.—Start from a squat position on the mat; roll over backwards and shift the hands to the sides of the head with the fingers pointing forward. The hips, the back, the hands, the shoulders, and the head touch the mat in sequence. Keep the knees as close to the face as possible with the feet together. Commence the roll and throw the hands vigorously backward; lift forcefully with the feet. To complete the roll, push strongly with the hands, keeping the fingers in the same relative position, in order to free the head. The hands will be pointed forward when the roll is completed. For the next step, assume the kip position; later backward rolls to a momentary hand balance and snap down may be done. (Ill. 4.)

Bucking Broncho (Donkey Kicks).—From an erect position, spring high from both feet to a momentary hand balance, placing the hands as close to the feet as possible. Attempt to bring the legs as close to the hands as possible by snapping the legs down forcefully and push off with the hands, coming almost to an erect position with the knees bent. Continue this coordination in rhythm.

Cartwheel Right.—Place the right hand, fingers pointed back, on mat close to the right foot; swing the left foot up vigorously and place the left hand slightly more than shoulder width from the right hand. Follow by springing off the right foot. Keep the body straight, bring the left foot down close to the left hand as the right hand leaves the mat. As the left hand leaves the mat, bring the right foot down close to the left foot. The body makes a complete arc. For a cartwheel to the left, reverse the position of hands and feet. (Ill. 5.)

Round off Left Hand Down.—This trick is actually a cartwheel with a half-turn inward. The trick may be executed from a stand or running start. Place the left hand down as a pivot with the fingers pointing to the side; follow by the right hand close to the left; throw up the left leg; follow by the right leg; bring the feet together in mid air; and twist so as to bring the body to the mat facing in the opposite direction. Pivot on the hand that was placed first as the legs complete the arc. This trick enables the tumbler to convert his momentum backward in preparation for advanced backward tumbling, which begins with the flip-flop or backward handspring.

Headspring (Stand or Running Start).—Place a dummy on the mat. Place the hands and the head on the dummy; push off with the feet, keeping the body flexed; forward at the waist; let the hips lead up and over until they drop below the center of balance. At this point, push off with the head and the hands; arch the back; tuck the feet under as they are coming down; follow through with the arms bringing the body to an erect position. As progress is made the take-off should be from both feet.

Neck Spring.—The neck spring starts like the head spring, but the back of the head rather than the top of the head is placed on the mat.

Nip-up or Snap-up.—Lie on back, flex body at the waist, roll back on shoulders and neck keeping the legs straight. Place the hands back and over beside the head, palms down, fingers pointing ahead, let the hips drop forward, kick out and up, arch the back, push off forcefully with the hands, and tuck the feet well under the buttocks coming to an erect position. (This stunt may start from trunk bent forward, feet apart position.)

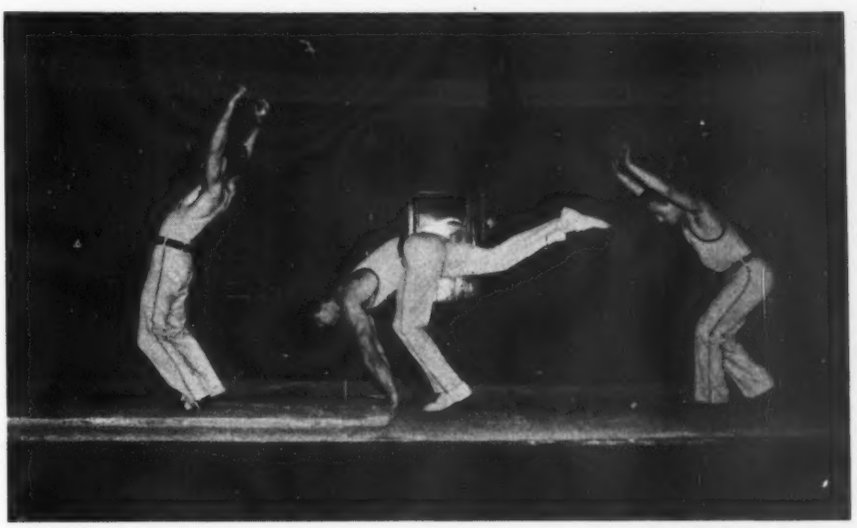


Illustration 6: Handspring.

Handspring (forward).—Make a running start; place the hands above the head; do a skip step on the right or left foot. The performer should be off balance forward so that he may use his momentum to advantage. Whip the hands vigorously down to the mat as the weight is transferred to the left foot; force the head back; push the shoulders slightly ahead of the hands. The most important feature of the handspring occurs here since it is necessary to maintain an arch so that the feet finish their movement close enough to the hands. The maintenance of this arch is attained by keeping the back leg straight at the knee and whipping it as vigorously as possible. The hands at the start of the trick should be close to the take-off foot. Every effort should be made to keep the arms straight, otherwise height is lost.

(*Continued on Page 120*)

AROUND THE COUNTRY

WITH J. E. ROGERS

The News Letter of the National Physical Education Service, National Recreation Association, has received many favorable comments. We quote a few:

"I find your Letters invaluable in showing trends in the past few years." Mabel Lee, University of Nebraska, Lincoln.

"I have read your last News Letter in great detail. I think that they are growing more and more interesting and ought to receive a fine response around the country." Ernst Hermann, Dean, Sargent College of Physical Education, Boston University, Cambridge, Mass.

"You will be interested in knowing that under our new set-up we are using your News Letter as a part of the professional reading of our health and physical education staff, as well as our major students." Elwood Craig Davis, Professor of Physical Education, The Pennsylvania State College.

* * *

William Day is now rounding out his twenty-five years of service at Salt Lake City. He will be retiring next year after fifty years of active service in many positions in physical education over the country.

* * *

Miss Katherine L. Cronin, Department of Physical Education for Women, University of Wisconsin, Madison, reports that Germaine Guiot will be on the staff during the second semester and the summer session, substituting for Ruth Glassow who is to be on leave of absence. During that time Miss Glassow expects to travel in Europe and have a glorious time.

* * *

Miss Fannie B. Shaw, author and teacher of health education, has been appointed Head of the Division of Health Education, State Department of Public Health, Atlanta, Georgia. Since 1935 Miss Shaw has been a member of the staff of the National Tuberculosis Association. She is a member of the joint committee on health problems of the American Medical Association and the National Education Association, and vice-chairman of the Health Instruction Section. Miss Shaw is co-author with Dr. Jesse Feiring Williams, Teachers College, Columbia University, of "Methods and Materials of Health Education," a textbook for teachers.

* * *

The School of Physical Education and Athletics, West Virginia University, may be heard over the facilities of Radio Station WMMN each Wednesday evening from 8:00 until 8:30 P.M. Members of the faculty of the school are interviewed by Dean A. W. Thompson on the highlights of the various activities which are offered in the program and curriculum of the school. Other members of the faculty and the officials of the University are also included in the discussion of general phases of University activities. The main purpose of the broadcast is to acquaint alumni and friends of the University with the varied activities that are being sponsored by the institution.

* * *

Many of Miss Blanche Trilling's friends will rejoice to hear that she is recuperating very satisfactorily from her serious operation. She is continuing in her steady improvement and spent a few weeks at Madison before she left for a complete vacation in Florida. She is expected to be back on the job next spring. This is great news because Miss Trilling has been one of our pioneers and great leaders.

* * *

James Edward Rogers, Director, National Physical Education Service, during the past 18 months has been conducting campaigns for state directors in 12 states. Seven state superintendents of public instruction are interested and have put items in their budgets. It is hopeful that three or perhaps four new state directors will be appointed this year which will make the highest number in any one year during the past ten years. It is hoped to establish two directorships in states formerly with directors and to get two new state directors for the first time. This would be a very high average.

State health and physical education associations have been most active in these campaigns. They have been most effective.

* * *

The Twenty-third National Recreation Congress will be held in Pittsburgh, Pennsylvania, October 3rd to 7th, 1938. The headquarters will be at the William Penn Hotel.

* * *

Our good friend, Dr. Anne Schley Duggan, has made a most interesting study, "A Comparative Study of Undergraduate Women Majors and Non-Majors in Physical Education with Respect to Certain Traits," Bureau of Publications, Teachers College, Columbia University.

* * *

The National Tuberculosis Association has made very fine contributions to the field of health, physical education, and recreation. Its pamphlets and booklets are very useful in these fields.

* * *

Our good friend Arthur V. G. Upton who is principal of the Morgantown, West Virginia, High School and former State Director of Physical and Health Education of West Virginia is now President of the West Virginia Association of Secondary School Principals. Many former physical education directors are becoming quite prominent and rendering outstanding leadership in the field of general education.

* * *

Noble E. Kizer is Director of the Division of Physical Education at Purdue University and is also football coach.

* * *

It is always a pleasure to hear from our good friend Mary C. Coleman, head of the department of physical education, The Women's College of the University of North Carolina. She writes: "You will be interested in the program which our Athletic Association developed for the high schools within a radius of one hundred miles. Our objectives were: first, to give the country high schools a conception of a broader program of Physical Education than merely basketball; second, to improve their basketball and to give them accepted standards of tournament play; third, to try out such a conference in hopes that the various teacher-training institutions of North Carolina might offer such a program to the high schools in their vicinity. Since we have no State Department, such a series of programs would have a real influence on the principles and practices of girls' athletics in North Carolina high schools. We had a splendid meeting with a large attendance and I believe that we are ready to present such a tentative plan to the State Department at Raleigh."

* * *

The National Y.M.C.A. is doing very fine work in regard to aquatics. Professor T. K. Cureton, Jr., chairman of the National Conference Committee, is to be congratulated on the many splendid achievements of this group.

* * *

Assistant Superintendent Herbert L. Cushing was recently elected President of the State Teachers College at Kearney, Nebraska.

* * *

The Montana physical education people are very active in developing a state program of health and physical education and particularly toward getting a state director. Miss

Inga Hoem as president of the Montana Physical Education Association last year was very active. The president for 1937 is Miss Erma Monroe of the Missoula County High School; the secretary-treasurer, Miss Lesley Vinal of the State University at Missoula.

* * *

Dr. E. B. Salt of the University of Florida is President of the Physical and Health Education Section of the Florida Education Association.

* * *

Everybody is thinking of safety education, so the Travelers Insurance Companies have published a very practical little handbook about safety called "Fun With Facts." It contains many interesting problems and would be valuable in any program of safety education.

* * *

Honorable Mention

Every state director is doing some distinctive thing and is making an unusual contribution. A few are mentioned in order that you may get in touch with them and ask for their material if you are particularly interested in the particular phase of the general comprehensive program.

1. Dr. A. G. Ireland, New Jersey, is doing a well-rounded job, but special mention should be made of his outstanding work on the health side, particularly with doctors and nurses, and his state-wide and community relationships with groups in health, physical education, safety, and recreation. Dr. Ireland does a particularly fine, state-wide job in relationships with all organizations working in this field.

2. Major E. V. Graves of Virginia has been doing splendid work in the rural physical education field, and especially with the classroom teacher and with the correction of physical defects. He has outstanding material.

3. Dr. Charles J. Prohaska of Connecticut has been doing some fine things in the health field and also in the development of teacher training in the state colleges.

4. Jessie R. Garrison of Alabama is doing many outstanding things especially with boys' and girls' athletics and athletic standards and badge tests; also in setting up state standards and in work with the classroom teacher.

5. It is impossible to enumerate all the things that Dr. Hiram Jones of New York does and the splendid literature that he has published, but honorable mention must go to his work with the crippled children, his state-wide relationships with organizations, and his control of athletics.

6. W. H. Orion of California for a comprehensive program and particularly for the recent publication, "Special Activities in Physical Education for High School and Adult Groups." He has done some very fine things in the field of recreation.

7. C. Harry Edwards of Maine, Bernice Moss of Utah, and Jess W. Hair of Louisiana have been doing some outstanding things in the development of physical education in the small towns and the rural districts and with the classroom teacher.

8. Harold Jack of Minnesota, Frank Stafford of Indiana, and Lewis S. Moorehead of Ohio have been working out some splendid standards in the field of health and physical education. The development of these state standards ought to prove of great help to other state directors. One should write these three men to get their standards.

9. Raymond H. Grayson of Massachusetts has been doing an outstanding job in that state in developing professional spirit and in putting athletics on an educational basis and gaining the interest and cooperation of coaches as part of the profession. Mr. Grayson and his assistant, Mr. Ralph H. Colson, have done splendid field service with visits and conferences.

10. Dr. Frank P. Maguire of Pennsylvania has been developing some up-to-date, progressive legislation and has been very much interested in working out a code of standards.

* * *

The Metropolitan Life Insurance Company publishes many fine booklets in regard to health and physical fitness, but one of the recent best is "Give Your Heart a Chance."

IN PLAIN ENGLISH

THE MEDICAL FRATERNITY calls it *Epidermophytosis.* The advertising fraternity calls it Athlete's Foot. And we call it by its plain old-fashioned name, RINGWORM.

More important than the name, however, is its prevention. Generally speaking, the disease is getting worse. Public health authorities regard it as a growing public menace.

And so it is, in spite of everything that has been tried to stop it.

But it need not be.

Ringworm is caused by a fungus growing in and under the skin. It exists, potentially, everywhere, even in the air. To attempt to kill it in the skin is silly—first because it cannot be killed except by powerful disinfectants or by 15 minutes of boiling, which would of course kill the skin and possibly the patient. Second, because there are trillions more of the fungi ready to replace any that might be killed.

What then is the answer?

IMMUNIZE THE SKIN WITH ŌNOX—A very simple, very effective, and very inexpensive preventive now used by leading schools in every section of the country.

Send this coupon for details.

ŌNOX SAN FRANCISCO, CALIF., or Box 53B, Westville, NEW HAVEN, CONN.

Please send your folder 89-B.

Name .....

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.....

"How We Do It"

Try Something Different

COMBINE a few rules of volleyball with paddle tennis and mix well with aerial darts. Serve to a class too large for paddle tennis and tired of volleyball.

Required equipment: one volleyball court with regulation badminton service and receiving courts marked off equi-distant from the side lines; ten to sixteen aerial dart paddles; one aerial dart; badminton net and standards.

The teams are placed on the floor as in volleyball—right forward, left forward, center or right and left center, right guard, left guard. The game can be played by eight players instead of five or six in which case placement is exactly as in volleyball. Rotation of players and scoring of points is according to volleyball rules.

Right forward of team *A* serves. She serves according to the rule of service used in badminton and must place the dart within bounds of the receiver's court while standing behind the service line of her own court. Once the dart is put in play by right forward of team *B*, the only one eligible to hit team *A's* service, play continues as in volleyball and anyone may return the shot. Double contact or assist is not allowed on any drive. The dart must go over the net on one contact. Right forward of team *A* continues to serve to the same receiver of team *B* until team *B* scores "side out." The dart may be driven back and forth many times before a point is finally scored.

When right forward of team *A* loses her service (side out), she does not rotate but receives the service of right forward on team *B*, to whom she has served. After right forward of team *B* loses her service, both girls rotate to center position and left forwards become, in turn, server and receiver.

Note: Inexpensive paddles can be designed and made of two-ply wood.

Margaret Powell
ASSOCIATE PROFESSOR OF PHYSICAL EDUCATION
SAM HOUSTON STATE TEACHERS COLLEGE
HUNTSVILLE, TEXAS

Play Without Awards

ANY step towards an ideal is always inspiring to those who take it, and encouraging to those who would like to take it. For that reason I thought that the step which the George School G.A.A. has just taken would be interesting to other schools.

We have abolished all athletic awards . . . yes, all of them, from letters to varsity jackets. Fourteen years ago the G.A.A. abolished the traditional custom of granting awards to varsity teams only, and substituted a more democratic system of awards whereby any girl who wanted her letter and was willing to work for it could get it. A point system was built up whereby points were given for all the various activities.

For many years this met the need and pleasure of the girls. Then we became dissatisfied. Too much emphasis was being put on points and letters, and too little on the pleasure and benefit of the activity. There was too much strain, and at the end of the term—a terrific rush. All this was undesirable.

We held a big conference of representative girls just before school opened and studied the whole question of awards—pro and con. After hours of discussion, the conference drew up the following summary. There seemed to be three phases in this matter of awards:

1. Traditional award of letters to Varsity members only. This is undesirable because it heaped more honor on the already prominent superior athlete. It automatically shut out the average, enthusiastic girl. It would seem to indicate that the aim of the Department of Physical Education was to develop varsity teams.

2. A democratic system of awards, i.e., a point system. This was most valuable for years, but we felt that now a change was needed.

3. The ideal is to teach girls and boys to work for work's sake, play for play's sake. The joy in physical exercise, satisfaction in doing well, friendly associations, thrill of the game, and appreciation of benefits are vastly more important than any material award such as a letter or cup. The girls testify that membership on a varsity team is in itself reward enough.

A substitute was suggested—a system of self measurement, in which girls would be checked for participation, improved skills, acquired skills. In this way girls could watch their growth—measure themselves—inspire themselves to further participation, improvement, and the learning of new skills. Emphasis was to be put on pleasure and benefit. This is also excellent training for the use of leisure time.

A full report of the conference was sent to all girls before school opened. The G.A.A. voted with unanimous and enthusiastic approval to accept the suggestion.

We have had one month's trial, by now. Everyone seems to be very happy about it. Girls participate in required and voluntary activities as much as before, and a very fine spirit is developing. A big step towards the ideal! It is a challenge. Can we meet it? Can we make it grow—make it of real value? We have high hopes, we think we can. We want to encourage any or all of you to try it with us.

Grace E. Thwing
GEORGE SCHOOL, PENNSYLVANIA

Yarnin'

OUR new game, "Yarnin'," was so named by our students and is played with a yarn ball and a badminton racket. A paddle tennis or aerial dart racket could also be used.

Rules of play.—Server stands anywhere behind the service line and may serve the yarn ball to any spot on the opponent's court.

Scoring.—Game of 15 or 21 aces as desired. Score only on own serve. The same person continues to serve until his side is put out by a fault. At side out no one scores, but the opponent begins serving. Only one serve is allowed unless it is a let ball, when it may be re-served.

Balls may be purchased at a sporting goods house under the name of badminton practice balls, or they may be economically made by winding a medium fine sports yarn 400 revolutions on a card 2½" wide. Tie tightly in center and cut the edges. Shape up into a ball and brush the ends with a fur brush.

This is an excellent game to precede badminton and aerial darts. It saves the wear and tear on the birds and at the same time teaches the game techniques. We use an underarm serve.

Mary Carroll Hillis
DRAKE UNIVERSITY

The New York Athletic Protection Plan

THE athletic protection plan of the New York State High School Athletic Association is five years old. It has taken the writer these five years to become entirely convinced of the absolute necessity of some form of athletic protection for the many boys that are participants in interscholastic athletics. While at the present time it is generally conceded that the boards of education in this state are not directly responsible for the injuries which occur to boys engaged in interscholastic athletics, I believe that this is partly due to the fact that no one has seen fit to press certain types of cases legally. For instance I am convinced that if a lawyer could show that a coach was negligible in placing some partially injured boy in a football game, the parent of that boy could prove a clear-cut case against the agent of the board and thus against the board itself. I admit that the case would not have a clear-cut legal precedent, but only a few days ago, the state of New York lost a case brought against it because of

failure to provide danger signs on the highway on the Cherry Valley Turnpike near Lafayette.

Since 1932 the number of registrants in the football season has increased five-fold. Figures by the numbers of boys covered for these years read as follows: 1932—1255, 1933—2603, 1934—4167, 1935—5619, 1936—6163. At the same time the ratio of the number of claims paid to the number of boys covered has constantly gone down. In 1932 one out of 48 boys was paid a claim, 1933 one in 27, 1934 one in 19, 1935 one in 15, 1936, one in 13½. The reason for this is that we have increased the kinds and types of accidents. It is interesting to note that every accident claim rejected in 1932 would have been paid in 1936. Figures for the year always show up a large number of cases where the boys should have been rejected by the doctor after cursory examination, or some medical adjustments made before he was allowed to play football. For instance, we have had twelve cases of major fractures of the arm or leg happening to boys who had a bad record of past bone fracture and who because of this record should not have been allowed to play football. We have a large number of fractured teeth, especially back teeth, reported where the dentist reports that the teeth were badly decayed. If these teeth were sound, would they have fractured as easily or at all? There is a real doubt in my mind whether or not we should pay any amount on such reported accidents. When we analyze the injuries, we find that leg injuries nearly doubled any other single type. Teeth, hand, and finger injuries are close seconds. The record of some of the schools is pretty bad. The school which has over five hundred dollars worth of injuries in a year should stop and think of the objectives of the athletic games and ask itself a question, "Is the will to win the answer for these injuries?" Certainly a record of no serious injuries for a football season is more valuable than a record of victories accompanied by broken arms, legs, and bones. Two boys who were covered this year by the football protection plan died as a result of participation in the game. At least one of these boys died unnecessarily from an infection beginning with a blistered heel which resulted in his death. That brings us to this matter of infection. Infection is unnecessary and hereafter we will not pay any extraordinary claims that rise from it.

We are again troubled with the fact that doctor's costs vary so much throughout the state. Doctor's expenses in some of the larger cities and in the metropolitan areas are at least one-third higher. It would be very desirable to differentiate the amounts that schools in those areas pay for their protection but it is rather doubtful that this could be done with our plan.

I've been frequently asked as to the legal status of this plan. Frankly, we have no clear-cut legal status. We make no promises except to distribute those amounts that we have available as fairly as we may to the schools and boys covered. Some insurance companies are interested and offer a similar service at a much higher price. If we were to pay all claims in full or all doctor's bills in full as asked for including a thousand dollar claim for one of the boys that died, we would have required a fee of $1.50 per boy. However, I do not recommend this procedure for I believe that $1.00 coverage should be sufficient with a provision of $.25 for each game over a seven-game schedule. Our experience has shown that many boys are badly hurt in the first two or three weeks, particularly in the first and second games. Therefore we would recommend that no football games either regular or "practice" games be played until after at least three full weeks of preparation and conditioning. This would mean that no game be played for the 1938 season until early in October, or in some few cases late in September. We have distributed $7421.60 in claims to 448 players. These boys received at least a satisfactory measure of medical care. If the protection plan had not made these payments possible, *who would have done so?* You must answer this question for yourself.

F. R. Wegner
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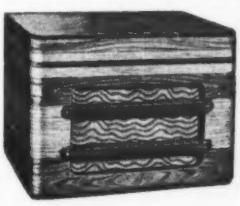

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Southern District Association News

President—Alfreda Mosscrop, Vassar College, Poughkeepsie, N.Y.
President-Elect—Thomas E. McDonough, Eastern State Teachers College, Richmond, Ky.
Vice-President—J. Lewis Cook, Hoke Smith High School, Atlanta.
Secretary—Mrs. Helen Corrubia, Public Schools, Tulsa.
Treasurer—G. L. Hermance, The Rice Institute, Houston.

ALABAMA

Curren A. Farmer

The executive council of the Alabama Physical Education Association met in Birmingham on December tenth, to plan for the meeting of the entire association in the spring. In line with the policy of the national association, the program this year will feature health and recreation.

Dr. C. H. McCloy, President of the American Association for Health and Physical Education was a visitor to the state in December. Dr. W. Morrison McCall, Director of the Division of Instruction, and Miss Jessie R. Garrison, supervisor of Physical and Health Education, planned an itinerary for him consisting of lectures and meetings with a number of groups in all parts of the state.

GEORGIA

R. D. Powell

All friends of health and physical education in this state were happy to welcome back to Georgia Fannie Shaw, who, on January 1, assumed a position with the State Health Department in the division of Health Education. She also holds the important position of Chairman of the Health Section for the approaching National Convention to be held in Atlanta.

Dr. McCloy met with Dr. Willis A. Sutton, superintendent of Atlanta Schools, Dr. H. Reid Hunter, superintendent of Atlanta High Schools, and twenty-five local chairmen and committee members at the Biltmore Hotel on December eleventh, to confer concerning their duties in preparation for the National Convention.

KENTUCKY

A list of Kentuckians serving as officers or members of committees of the various organizations in recreation, physical education, and athletics for this year is headed by Dr. T. E. McDonough, Eastern Kentucky State Teachers College, who is President-Elect of the Southern District of the A.A.H. & P.E. A. L. Lassiter of Richmond High School represents Kentucky on the National Federation of High School State Athletic Associations. Elizabeth Roach of Fort Thomas is the State Representative of the National Section on Women's Athletics. Bob Evans, Georgetown College, is President of the Kentucky Intercollegiate Athletic Conference. George Ditto of Kentucky-Wesleyan College is Secretary of the Kentucky Intercollegiate Athletic Conference. Mrs. Catherine Siebold Kirwain of the Louisville Division of Recreation is State Chairman of the Women's Division of the N.A.A.F. L. T. Smith, who for many years has been a member of the Southern Intercollegiate Athletic Association Executive Committee, this year represented that organization at the National Olympic Association Meeting in Washington.

LOUISIANA

Jess W. Hair

Margaret Manor, M.A., of Teachers College, Columbia University, has been added to the staff in the Women's Department of Physical Education at Louisiana State Normal College. Miss Manor is offering classes in the Modern Dance.

One of the outstanding events on the general assembly program at the recent State Teachers' Convention was the dance recital given by Miss Ruth Price's Modern Dance Group from Louisiana State University. Following the Convention, Miss Price went to New York City to attend the First International Dance Congress.

Dr. A. D. Browne, of L.S.U., spoke before the New Orleans Public Schools on the subject of "Vocational Guidance," December 7.

MISSISSIPPI

Ruth White

Fannie B. Shaw spent the week of December 6th in Mississippi, visiting a number of colleges and the public schools of Jackson, and giving an address at the meeting of the Mississippi Literary and Athletic Association.

The State Literary and Athletic Association at its meeting on December 11th decided to eliminate the following events from the district and state track meets for high school girls—hurdles, high jump, broad jump.

OKLAHOMA

Miller Patterson

Dr. Jay B. Nash, New York University, will be the principal speaker at the Health and Physical Education luncheon on February 11 during the Oklahoma Education Association meeting. The forming of the Oklahoma Association for Health and Physical Education to conform with the National Association will be completed at this meeting.

A dance group composed of four boys and four girls from Oklahoma A. & M. College, under the direction of Mary Tree Watson, gave a demonstration of modern dance techniques and dance forms at the annual meeting of the Progressive Education Association in Tulsa, December 4. Mrs. Johana Downs Lee, of Oklahoma City University, discussed The Modern Dance. The section was in charge of Mrs. Helen Carlson Corrubia, Director of Physical Education in Tulsa Public Schools.

SOUTH CAROLINA

Julia H. Post

The annual spring meeting of the state association will be held in Columbia on March 20, 21, and 22 at the time of the meeting of the South Carolina Education Association. One of the speakers at that meeting will be Jessie Garrison, State Director of Alabama.

Mrs. Frances Graham McFadden, formerly of the University of Georgia, and now a resident of Chester, South Carolina, gave a dance recital in the high school auditorium on December 8th.

TENNESSEE

Helen McColl has resigned from the faculty of the Department of Physical Education of the University of Tennessee to accept a position as head of the Department at Guilford College, North Carolina. Her position has been taken by Miss Frances Rudisill of North Carolina Woman's College and Columbia University and with several years' experience in the high schools of Durham, North Carolina.

Mr. Max Chapman comes to the University as an additional instructor in the Department of Physical Education. Mr. Chapman received both his Bachelor's and Master's degrees from Oberlin College and has been on the faculty of Oberlin College for the past seven years.

TEXAS

Jeanie M. Pinckney

Recent out-of-state visitors to the health and physical education departments of the University of Texas were Miss Mabel Lee, the University of Nebraska, and Dr. Gertrude Moulton, Oberlin College.

Dr. Maurice Bigelow, Professor of Biology, Columbia University, will visit the state soon on official business of the American Social Hygiene Association.

For more than a year approximately one hundred teachers have been working upon a revision of the health and physical education course of study in Fort Worth. This course of study is now in the try-out period and is to be used as a tentative and suggestive guide to assist the teachers in directing the growth of students.

Central District Association News

President—A. O. Anderson, St. Louis, Missouri.
President-Elect—Elizabeth Halsey, Iowa City, Iowa.
Vice-President—Willard N. Greim, Denver, Colorado
Secretary-Treasurer—L. P. Washburn, Manhattan, Kansas

Prevues of the Central District Convention
Hotel Nicollet, Minneapolis
March 30, 31—April 1 and 2

The fifth annual convention of the Central District Physical Education Association will be held in the hospitable city of Minneapolis, March 30 to April 2, at the Nicollet Hotel.

President A. O. Anderson and his committee started work on the project last May, and they have secured a number of excellent speakers. Prominent among them are C. H. McCloy, our National President; David Bryn-Jones, Professor of International Relations, Carleton College, Northfield, Minnesota; Ethel Perrin, formerly Executive Secretary of the American Child Health Association; Dorothy Enderis, Director of Community Recreation in Milwaukee, Wisconsin; E. T. Peterson, Professor of Educational Administration of the State University of Iowa, and H. H. Kirk of Fargo, North Dakota.

Miss Perrin and Miss Enderis will bring especially interesting contributions from the fields of health education and recreation. Professor Bryn-Jones is a speaker of national reputation in the field of world affairs, and Professor Peterson of Iowa is in a position to give expert advice on questions of school plant and site selection.

Several of the sections are planning interesting meetings. Mr. Danford reports that the city directors are to have a round table discussion on the "Future of Interscholastic Athletics" as well as "Corecreation Activities in High School" and "Health Practices in Physical Education." Mr. Dunder of the Recreation Section is planning a novel feature in the form of a social recreation meeting on Wednesday afternoon which will come early enough in the convention to serve the purpose of giving those who attend an opportunity to become acquainted.

One of the city features of great interest is an evening at the Annual Ice Carnival of Minneapolis. This event is so well known that it draws thousands from out of the city every year.

The demonstration this year is also a new departure. It should be of value to every teacher in the District because its primary aim is to show teaching procedures. It will, therefore, be informal in nature and held on Thursday afternoon at the University of Minnesota. The Demonstration Committee under the chairmanship of Helen Manley of University City is already hard at work on the program.

The complete program will be in the March issue of the JOURNAL. Save the dates and plan to attend.

MISSOURI

Jack Mattheus

The annual refereeing school for women basketball officials started Saturday morning, January 8. The meetings continue each Saturday until the middle of February when the national test for women officials will be conducted. Margaret Duncan of the University, Emma Spencer of Stephens College, Norma Leavitt of the University, and Anna Sue Kennedy of Hickman High School comprise the group conducting the refereeing school and the examining board.

When You Visit MINNEAPOLIS

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Central District Physical Education Association

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SOUTH DAKOTA

Ruth Covington

The S.D.E.A. Journal contained a review of Strong Hinman's address at the Sioux Falls Convention.

Mrs. Myrtle Messenger of Augustana College has just published a book on rural school physical education.

Jean Smith of Rapid City has been appointed head of the state publicity for physical education.

J. H. Morrison, Associate Professor of Physical Education at Northern State Teachers College, has completed surveys of the status of physical education in the rural, elementary, and secondary schools of South Dakota, and is now working on a study of the present work of the Northern State Teachers College graduate majors and minors in physical education of the last ten years.

COLORADO

Elizabeth C. Forbes

The Recreation Training Institute conducted by the National Recreation Association in Denver January 3–28 proved to be a most constructive venture. The institute was co-sponsored by the Denver Council of Social Agencies with the collaboration of other agencies.

Frank A. Staples, director of the Institute, presented the work in arts and crafts. The course in nature activities was handled by Reynold E. Carlson, and Augustus D. Zanzig gave the lectures in music.

NEBRASKA

John Roberts

The Lincoln Physical Education Association is holding regular monthly meetings this year for the first time since it was organized. We were pleased that J. E. Rogers could meet with us at our regular January meeting.

Our state committee on teacher training met in January to continue its active work on gaining higher certification for those teaching physical education in this state.

MINNESOTA

A. F. Brainard

Through the efforts of Hugo Fischer, Acting State Director of Physical and Health Education, numerous conferences on physical education work are being held throughout the state for superintendents, principals, and teachers of physical education. On January 8 a splendid meeting was held at St. Cloud State Teachers College.

In the November News Letter of the Division of Health and Physical Education are found some very interesting statistics regarding the growth of the program of health and physical education throughout the state. The number of full-time and part-time teachers has increased enormously during the past decade and the number of gymnasiums has practically doubled.

IOWA

Ruth E. Lautenbach

Professor C. H. McCloy, President of the American Association for Health and Physical Education, left Iowa City on December 3 for Birmingham, Alabama, to confer with the state department of education of Alabama concerning new developments in its state program of physical education.

His rather extensive speaking tour following this conference included addresses at Alabama College, at the Ohio State University, the University of Pittsburgh and before the Pennsylvania State Physical Education Society, and several other groups in the East.

KANSAS

L. P. Washburn

The Administrative Council of the Kansas State Teachers College, Pittsburg, at a recent meeting changed the name of the Department of Physical Education to the Department of Health and Physical Education.

Beginning the fall semester of 1938, the Department of Health and Physical Education will offer a two-hour "Safety Education" course, based on materials and methods to use for safe living.

Southwest District Association News

President—C. W. Davis, Berkeley, California.
Vice-President—Wilma Jeppson, Brigham Young University.
Sec'y-Treasurer—Catherine Worthingham, Stanford University.

ARIZONA

Ina Gittings

J. F. McKale, President of the Arizona Association of Health Education, Physical Education and Recreation, has appointed Sectional Chairmen for the state as follows: District I, Aaron McCreary, Arizona State Teachers College, Flagstaff; District II, Elizabeth Jack, Phoenix Union High School; District III, John Riggs, Gila Junior College, Thatcher; District IV, Milton B. Morse, Douglas High School.

G. A. "Tex" Oliver and Dr. Emil Larson attended meetings of the American Football Coaches Association held in New Orleans, December 27. Mr. Oliver represented the Eighth District, which includes Utah, Colorado, Wyoming, New Mexico and Arizona.

CALIFORNIA

Louise S. Cobb

Dr. Charles E. Shepherd of Stanford University was elected National President of the American Student Health Association at the December meeting in Chicago.

Lucile Czarnowski, University of California, Berkeley will be the teacher of dance in the course for American and Swedish Teachers to be offered in Sweden in the summer of 1938 under the leadership of Mrs. Ingrid Holm, State College for Women, Gothenburg.

The Long Beach Unit of the California Association of Health, Physical Education and Recreation published a most attractive Christmas Bulletin containing much valuable material for unit members.

NEW MEXICO

Jean Thompson

Louise Boilleu at Portales has developed an interesting physical education program, with no gymnasium and little equipment. The program includes a mixed doubles tennis tournament, and Old-Fashioned Parties featuring Swing Games and American Country Dances.

UTAH

Bernice Moss

Plans for the Southwest District Convention of the American Association for Health and Physical Education to be held in Salt Lake City, April 14–16, immediately following meetings of the National Recreation Association, have been forwarded to C. W. Davis, Berkeley, California, the District President, by Bernice Moss, Convention Chairman and Chairman of the Program Committee. The Newhouse Hotel will be official headquarters for the Physical Education Convention and the Recreation Conference which precedes it.

The program includes a banquet and dance on Thursday evening, April 14, and a general session panel discussion on "Problems in Physical Education" under Dr. N. P. Neilson of Stanford University on Friday evening, April 15. A general session centering on recreation will be held on Friday morning, and one emphasizing health education on Saturday morning.

Section meetings, in addition to those announced in the January JOURNAL, are being planned by section chairmen as follows: R. H. Lavik, Arizona, Men's Athletics; J. W. Coleman, University of Nevada, Research; Claire Colestock, Pasadena, Therapeutics; Bernice Moss, Salt Lake City, Health Education; W. H. Orion, Chief of Staff, Division of Health and Physical Education, California State Department of Education, Teacher Training.

News from the Dance Section

Charlotte G. MacEwan

On the evening of January 13, the Health Education Department of the Boston Y.W.C.A. presented Hanya Holm and her Dance Group in a demonstration program of modern dance at Lee Auditorium. A similar demonstration was given by Hanya Holm and her group at the State College at Framingham, Massachusetts, on the afternoon of January 13.

On December 14, the dance groups of Wellesley College presented a demonstration of techniques and informal program of dance compositions before the students and faculty of the college

In its winter and spring program, the English Folk Dance Society of America is including, in addition to its repertory of English Morris, Country, and Sword Dances, related forms of the American Square or Country Dances. In addition to New York, the society now has centers in Boston, Cleveland, Southern California, and Philadelphia.

On November 29, Orchesis of the University of California gave a lecture-demonstration for the music section of the Hillside Club in Berkeley. The large audience responded wholeheartedly to the talk on modern dance given by Lucile Czarnowski and the demonstrations of dance techniques and composition presented by Orchesis and Lois Ellfeldt. On December 1, the same group gave a program of techniques and group compositions for the Physical Education Majors' Club of the Department of Physical Education for Women. At the Christmas party which followed, "The Juggler of Notre Dame" was presented.

A dance symposium of the high schools of Northern California was held at Sacramento Senior High School on December 11. Plans were formulated to make this an annual event. Lois Ellfeldt led the group lesson and Lucile Czarnowski spoke on modern dance and led the forum which followed.

Students at Castilleja School in Palo Alto presented "The Juggler of Notre Dame" as part of their Christmas Pageant on December 17.

The Committee on Public Exercises at Stanford University presented a young California dancer, Von Goodman, in a program of Mexican, Indian, and Oriental dancing on the evening of November 23.

A dance class for men has been organized at San Jose College under the direction of Marjorie Lucas and Mrs. Virginia Jennings, and will meet weekly for two hours. Plans have been made for the men to participate in the annual spring dance concert. There is also a large enrollment in the two elementary and one advanced dance classes, and a class in dance composition has been formed.

MID-WEST CONFERENCE ON TAP, SOCIAL, AND MODERN DANCE

A pre-convention working conference on tap, social, and modern dance under the auspices of the Mid-West Dance Section will be held in Ida Noyes Hall, The University of Chicago, on April 5 and 6. The conference comprises: "New Methods in Tap Dancing," Dorothy Hine, Detroit Public Schools; "Fundamentals of Social Dancing," Edith Ballwebber, University of Chicago; "Rhythmic Form and Analysis," Margaret H'Doubler, University of Wisconsin; "Techniques for Modern Dance," Ruth Murray, Wayne University; "Composition for Modern Dance," Martha Hill, New York University and Bennington College; concluding session, a paper on "The Structure of the Dance" by Prof. George Beiswanger, Monticello College, and a demonstration analyzing dance structure by Marian Van Tuyl and group, University of Chicago. 100 active participants and 50 auditors will be admitted. The fee is $5.00.

Dance Section of The Mid-West Physical Education Association, *Pre-Convention Conference on Tap, Social, and Modern Dance,* April 5 and 6, 1938 —Ida Noyes Hall, University of Chicago.

I wish to enroll as (check): Participant..... Auditor.....

Name: .....

Address: .....

Occupation: .....

Please enclose $1.00 registration fee. The balance of $4.00 is due on or before March 15, 1938. Fees are not refundable. Make fees payable to and send to: *Mary Jo Shelly, University of Chicago.* Details of conference will be sent to applicants.

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Many physical educators have found this course of great value in their work.

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Mid-West District Association News

President—Laurentine Collins, Detroit Public Schools.
Vice-President—W. K. Streit, Cincinnati Public Schools.
Secretary-Treasurer—August Pritzlaff, Chicago Public Schools.
Member-at-Large—Willard W. Patty, Indiana University, Bloomington.
Past President—J. H. McCulloch, Michigan State Normal College, Ypsilanti.

Additional Mid-West Convention Highlights
Sherman House, Chicago, April 6-9

Laurentine Collins, our President, reports that great progress is being made in planning and organizing the program for the Mid-West Convention. Combined section meetings are being planned and general program chairmen have been appointed to coordinate and integrate the activities of the combined section meetings.

The groups which will meet jointly and the coordinating chairmen are:

1. City Directors, Curriculum, Public Schools, Teacher Training; Frank A. Stangel, Public Schools, Milwaukee.
2. Recreation, Y.W.C.A., Camping; Ross Allen, American Camping Association, Ann Arbor.
3. Men's Athletic Section, Women's Athletic Section; Grace Griffin, University of West Virginia, Morgantown.
4. Research, Therapeutics; V. F. Hernlund, Chicago Parks District, Chicago.

You can help by sending any suggestions you may have to these chairmen, to the Officers, or to the Executive Committee.

In the meantime, will you spread the news of this meeting to your friends and urge them to attend! SAVE THE DATES FOR YOURSELF!

ILLINOIS

Clifford E. Horton

At Altamont, Illinois, Miles E. Mills, principal of the grade school, Coach E. L. Haag, and R. B. Casey, principal of the high school, have developed an unusually interesting intramural program, beginning in the grades and extending through the high school. The purpose was to allow each boy to experience the thrill that comes from actually performing before an audience. Principal Mills reports that he is greatly pleased with the program and the friendly interclass rivalry that has developed out of it. The admission fee of five cents is sufficient to finance the entire program.

INDIANA

Ben W. Miller

The new *Administrative Handbook for Indiana Schools*, Bulletin No. 100, issued by the State Department of Public Instruction, lists the standards for physical, safety, and health education for the different classifications of elementary schools and junior and senior high schools. All schools in the state should receive a copy of these standards with the summary of the important regulations involved in the administration of these programs.

Courses in recreation leadership are being conducted by the National Recreation Association and sponsored by the public and private agencies of Indianapolis, February 7 through March 4.

MICHIGAN

Roy J. McMurray

The new members-at-large of the M.P.E.A. elected at the December meeting of the Association are: Frank Manley, Flint (3 years); Crystal Worner, Kalamazoo, (2 years); Dr. Frank Oktavec, Detroit, (1 year).

Charles Forsythe, State Director of Interscholastic Athletics, was present at the December meeting of the M.P.E.A. A fine spirit of cooperation exists between these two organizations in the promotion of physical education and athletics throughout the state.

OHIO

Sidney R. Boyd

The Physical and Health Education Section of the Ohio Education Association meeting during the holidays was well attended, especially by superintendents and principals. Roscoe K. Miller of Wilmington College discussed the subject, "A Program of Physical Education for Secondary Schools," and Sidney R. Boyd of Ashland outlined "A Well-Balanced Program for Elementary Schools."

Interscholastic basketball for girls is on its way out in Ohio. Of 809 schools reporting to the state commissioner, only 363 maintain teams with 165 of these indicating their desire to drop the game soon. Five hundred sixty-one schools promote basketball as an intramural sport while 195 have none at all.

WEST VIRGINIA

Charlotte Berryman

The West Virginia Physical Education Association held its annual meeting in conjunction with the State Education Association's Convention in Clarksburg early in November. At this meeting new officers were elected for the next two years, as follows: President, Ross Ludwig, Fairmont High School; Vice-President, Eleanor Hinkle, Charleston Public Schools; Secretary-Treasurer-Editor, Harry Samuel, West Virginia University, Morgantown.

Dr. Seward C. Staley, University of Illinois, was the main speaker of the Association meeting, and also addressed one of the general sessions.

Women's Athletic Section News

Rachel Jane Benton

Riding . . . The definite trend toward riding and mixed recreation as a part of the physical education program is much in evidence. Five years ago in Cleveland a riding class for high school girls was organized. Not only did interest increase rapidly among the girls, but the boys wanted to learn, too, so that now there are many classes throughout the city school system, most of which are with mixed groups.

Physical Education Club . . . In Milwaukee the women in physical education felt a great lack in having no natural channel for knowing people in their own field, so six years ago a club was organized to answer this need. Each year this club promotes some worthwhile project such as a special study group, class work in modern dance, tennis, and golf. The club has enjoyed talks and demonstrations from such persons as Margaret H'Doubler, Elizabeth Halsey, and Grace Stafford. It has been instrumental in establishing a National Board of Examiners for basketball officials rating, and has practically eliminated the coaching of girls' teams by men, and girls playing under boys' rules in that city.

W. A. S. Evangelist . . . Our cause is being ably sponsored in Missouri through the capable leadership of state representative Alice Schriver of Washington University, and her committee of fourteen. This committee met in St. Louis during the Missouri Physical Education Association gathering. Reports from each section were given and state and national plans outlined. Each member showed considerable enthusiasm as evidenced by promises to spread the gospel of the National Section on Womens' Athletics by contacting adult groups, by sponsoring sports days and demonstrations bringing together both pupils and teachers of each state

area, and by promoting talks with parents and school administrators. "On call" service of the committee was particularly stressed for purposes of aiding teachers in the field, play leaders, administrators, P.T.A. groups, and laymen.

Survey Service . . . That future programs of this section for the Eastern District conventions can be planned to meet the interests of those who attend, the N.S.W.A. at its April meeting in Atlantic City is arranging to conduct a survey to find out the kind of teaching situations and age levels represented.

New State Representatives . . . Printed in the Basketball Guide No. 17R is a list of state representatives who should be contacted concerning problems relating to girls' and womens' athletic activities in your state. The following are recent appointments and should be added to that list:

Colorado, Hannah Praxl, State Teachers College, Gunnison.

North Dakota, Phyllis Jack, University of North Dakota, Grand Forks.

New Mexico, Minnette Friberg, 925 Sixth Street, Las Vegas.

Kentucky, Elizabeth Roach, Highland High School, Fort Thomas.

Sports Conference . . . The Mid-Winter Sports Conference in Chicago was an outstanding success, and drew an attendance of nearly three hundred women from twenty-two states. Of these, the majority were high school and college instructors, each one teaching five or six sports in her school program. There were also many elementary school teachers, college students, and recreation leaders present, so the panel discussion on interscholastic athletics and the floor discussion which followed it was representative of a wide variety of sports programs. A full report of the discussion is given in the January issue of the *Service Bulletin*.

Tests and Measurements ✣ Section News ✣

H. HARRISON CLARKE
Syracuse University

Progressive physical educators recognize the fact that only through measurement procedures which accurately determine the physical ability of pupils and through the adaptation of program content to the needs and capacities of individuals, will physical education become a truly effective force in the lives of boys and girls in their care. Professional zeal is an important asset to the physical director faced with this task, but sufficient time for measurement, classification, and curricular adaptation is of course essential. Many physical education teachers, however, are solving this problem by making a diligent survey of the local situation and by utilizing time-saving procedures in the administration of the program. Not only have their programs grown as a result, but their position in the school and community has been greatly enhanced.

Dr. Frederick Rand Rogers has sent in a list of forty-three institutions in New England which are using the P.F.I. program. Of this number, twenty-six are public schools; eleven, colleges and universities; and six, Y.M.C.A.'s.

The School of Education has organized a test advisory service at Syracuse University, this service covering the whole field of measurement in education, and having two essential features, as follows: (1) Consultation Service, in which various members of the faculty act as consultants for people in the public schools wishing advice on tests and testing programs. (2) A Test Distribution Center Service, in which the University Book Store will invest quite a sum of money in carrying a complete stock of test supplies in the various educational fields. H. Harrison Clarke will represent physical education in this project.

The executive officers of the Downtown Branch of the Y.M.C.A. in Pittsburgh had a consultation with Professor T. K. Cureton of Springfield College, on measurement programs which would put their health examinations on a more objective basis. The plan finally adopted provides for the administration of the following tests: (1) McCurdy-Larson Circulatory-Respiratory Test, (2) Rogers' Physical Fitness Test, (3) Flexibility Test, and (4) Postural Test.

Frederick A. Meier, Director of Health and Physical Education, writes that a physical fitness testing program has been inaugurated in the State Teachers College at Bridgewater, Massachusetts. Up to the present time it has been necessary to carry on the program within the regular physical education classes.

Progress is being made in the physical fitness testing program at Camillus, New York, under the direction of John Gibbons. The low fitness students are placed in separate classes and given special exercises to build up their bodies and increase their muscular strength. The upper groups are sub-divided according to S.I. for physical education class work.

Twenty physical education teachers in Onondaga county, New York state, met on November 19 at Syracuse University to discuss the problem of measurement in physical education. Action leading to the inauguration of definite measurement programs was contemplated by several of those who were present.

James A. Wylie, director of the required physical education program at Boston University, writes that their Physical Fitness Tests have a three-fold purpose, as follows: (1) To investigate, in cooperation with the Department of Student Guidance and the deans of the various colleges, the physical fitness of students with academic and social difficulties. (2) To section for physical education classes students according to their health needs, and to equate squads within an individual class. (3) As the starting point for the course in personal health. Each student's achievement in the course is thus indicated by his change in health habits and health knowledge and by the change in his P.F.I.

Eastern District ✣ Association News

President—Dr. Hiram A. Jones, Albany, New York.
Past President—Franklin J. Gray, Springfield, Massachusetts.
Vice-President—Loretta Ryan, New York City.
Secretary-Treasurer—Grace E. Jones, Summit, New Jersey.

ADVANCE PROGRAM, EASTERN DISTRICT CONVENTION
Atlantic City, New Jersey—April 6-9
Hotel Headquarters, Hotel Ambassador

Tuesday, April 5: Afternoon sightseeing tours.

Wednesday, April 6:

9:30–12:00—School Visitation.
2:00– 4:00—Section meetings for sections wishing them.
5:00– 6:00—Legislative Council Meeting.
8:00 —Opening General Session.

Thursday, April 7:

9:00–10:45—Section Meetings: Camping, Research, Dance.
11:00–12:00—General Session.
2:00– 4:00—Section Meetings: Men's Athletics, Women's Athletics, Therapeutics, Tests and Measurements.
4:30– 5:30—Demonstration Hour.
7:00 —Banquet.

Friday, April 8:

8:00– 9:30—Breakfast meetings for affiliated organizations.
10:00–11:30—General Session in charge of Health Section.
12:00– 2:00—Alumni Luncheons.
2:00– 4:00—Section Meetings: Public Schools, Private Schools, Teacher Training.

4:15– 5:30—General Session in charge of Recreation Section.
8:00 —Demonstration Atlantic City Schools.
10:00 —Dancing.

Saturday, April 9:

9:00–10:45—Section Meeting of Student Section.
—Section meetings and demonstrations for sections wishing them.
11:00–12:00—General Session.

RHODE ISLAND

Louise H. Kelley

The Rhode Island Physical Education Association held the first meeting of the year on October 28, 1937 in connection with the Rhode Island Institute of Instruction. We were privileged to have as speaker Dr. Allen G. Ireland, Director of Health, Safety, and Physical Education of the State of New Jersey. Dr. Ireland's subject was "The Integration of Physical Education with other Subjects."

On the 29th of October, the second Institute meeting was held at which time members of the association entered into a panel discussion of Health and Physical Education. Those taking part were Helen M. Cooper, Blanche E. Edwards, Louise H. Kelley, Dr. Charles Lewis, Dr. Frederick Marvel, John Osterberg, Dr. Florence Ross, Bessie Rudd, Professor Leslie Swain.

DISTRICT OF COLUMBIA

C. Belle Meyers

Conference Sponsored by the Physical Education Association of the District of Columbia
Saturday, February 5, 1938

PROGRAM

10:30 A.M. General Meeting.

Chairman: Birch Bayh, Public Schools, District of Columbia.

Speaker: Irma Ringe, Assistant Director, Recreation Division, Federal Works Progress Administration. "The Place of Recreation in Physical Education."

Discussion Leader: Ralph Foster, Y.M.C.A.

12:15 P.M. Luncheon.

Presiding: Jenny E. Turnbull.

Speakers: Dr. Jesse F. Williams, Teachers College, Columbia University.

"As I See It," Dr. Harry C. Byrd, President, University of Maryland; Thomas C. Ferguson, Supervisor of Physical Education and Recreation in Maryland.

2:30 P.M. Women's Section Meeting.

Chairman: Elaine Scanlon, Trinity College.

Speaker: Grace Jones, Summit, New Jersey, Secretary-Treasurer Eastern District Society, "The Physical Education Program for Girls."

Discussion Leader: Ruth H. Atwell, The George Washington University.

2:30 P.M. Men's Section Meeting.

Chairman: Lester Walter, Principal, Powell Jr. High School.

Speaker: Dr. Jesse F. Williams, "Modern Trends in Physical Education."

Discussion Leader: Hugh Smith, Principal, Jefferson High School.

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3:30 P.M. Demonstrations.

Demonstration of Dance for Elementary and Secondary School Age. Under the direction of Evelyn Davis, Evelyn Davis School, Washington, D. C., Mountain School of Dance, Greeley, Colorado.

Educational Basketball Film: Presented by Famous Coaches.

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Vice-President ..... LeRoy Mackert
Secretary ..... Maude N. Parker
Treasurer ..... Stanley Collins
Chairman Women's Section ..... Elizabeth Molster
Chairman Men's Section ..... John Donovan

Northwest District ❖ ❖ Association News

President—Percy Clapp, Greeley, Colo.
1st Vice-President—Madeline Larsen, LaGrande, Oregon.
2nd Vice-President—Christian Brocar, Spokane, Washington.
Sec.-Treas.—Helen G. Smith, Pullman, Washington.

Helen G. Smith

IDAHO

The Physical Education Section of the Idaho Education Association met at Boise November 26, 1937 and organized the Idaho Association for Health and Physical Education. A constitution was adopted and the following officers were elected: President, J. Y. Nicolds, American Falls, Idaho; Vice-President, Clarence McClure, Weiser, Idaho; Secretary-Treasurer, Eleanor Sloan, Lewiston Normal School, Lewiston.

The immediate purpose of the organization is to foster the promotion of compulsory physical education throughout the state.

A national membership drive was begun to enable the association to become affiliated with the American Association for Health and Physical Education. The association hopes to be able soon to serve teachers in the state by collecting and distributing helpful material.

Irene Buckley, Director of Physical Education, and Effie Huggins, school nurse, of Albion State Normal School, are working together to develop a better health program in the School. Slides, lectures, and discussions concerning syphilis, its cause and treatment, are being given. The Wasserman test for every training school and college student is an objective of the program. Safety in every form is being stressed and the following pamphlets by J. C. Werner, director of training school, have been published: *Safety on Streets and Highways* and *The Ten Commandments on the Highway of Death.* A third pamphlet along safety lines is being prepared by Mr. Werner.

Posture conscious week was observed at Albion, Idaho, in November. "Streamline your Build" and other clever slogans found in the book *Your Carriage, Madam* by Janet Lane, helped in conducting the drive.

As state chairman of the committee of the curriculum in health and physical education for the first six grades, Miss Buckley is working out several rhythm projects. Legends and dances of various countries such as Mexico, Africa, and Norway, have been the subject of these studies.

The Women's Athletic Association of Albion State Normal sponsored a High School Playday, entertaining the girls of many surrounding towns including Twin Falls, Rupert, and Paul. The theme for the playday was Thanksgiving. The program started with a turkey chase, and ended with stunts and a musical program.

Physical education programs are being organized in the elementary school at Bonners Ferry and the high school at Wallace.

It May Interest You to Know---

"PROPAGANDA ANALYSIS," a recent entry in the publication field, points to the following devices of propaganda: (1) the name calling, (2) the glittering generalities, (3) the transfer, (4) the testimonial, (5) the plain folks, (6) the card stacking, and (7) the bandwagon. The appeal of these devices to public emotion is the "catch."

* * *

NATIONAL Dance League, 505 Fifth Avenue, New York City, will send descriptions of the Quadrille and the Big Apple upon receipt of a self-addressed stamped (six cent) envelope.

* * *

"HAIL, West Virginia! The School of Physical Education and Athletics, West Virginia University, is on the air!" Under the sponsorship of Dean Alden W. Thompson, thru WMMN (Monongahela Valley Station).

* * *

"COLDS are the result of poor health manners." January JOURNAL. Edward J. Storey.

* * *

THE American Academy of Physical Education has adopted the policy of rewarding meritorious work performed in the service of physical education. In addition to publicizing its action the Academy recognizes the work so honored with a suitably engrossed *Centificate of Award* presented to its author.

Awards are to be voted annually by the Academy at its meeting held at the time of the national convention of the A.A.H.P.E. The Academy has entrusted a Standing Committee on Awards with the task of searching out contributions worthy of this honor. This committee, now under the chairmanship of Professor Jay B. Nash of New York University, announces that it seeks for evaluation meritorious work in four classes as follows: (1) research, (2) administration, (3) publications, (4) creative tasks.

At this time the committee is particularly anxious to have brought to its attention oustanding theses submitted during the last five years in fulfillment of requirements for higher degrees (masters or doctors) provided the research involved contributes directly or indirectly to physical education, health, or recreation. Schools or individuals may submit suggestions directly to the chairman of the committee. To be considered for the Award in 1938 such suggestions must reach Dr. Nash not later than February 10, 1938.

To date the Academy has honored two pieces of work—first, "The Column of Youth," the creation of R. Tait McKenzie, and second, "Recent Trends in Physical Education Facilities for College Women," a research by Ruth Elliott Houston.

* * *

WE wish to correct an error which was inadvertently made in the January issue of the JOURNAL. Mr. R. E. Titus originated the "scooter" activities described in the article, "New Gymnasium 'Scooter' Games and Activities," published over his name in the How We Do It section of the magazine, but the description as published was prepared by Dale Sprankle of Albion College. We extend our apologies to Mr. Titus and Mr. Sprankle for this editorial error.

* * *

FROM our exchanges we find the following articles interesting:

December *Elementary School Journal,* "Selected References on Teacher Education," William S. Gray.

January *Nation's Schools,* "Pitfalls in School Publicity," Frederick J. Moffit.

December 13, *Los Angeles School Journal,* "Health Living for High School Girls," Kathryn D. McCabe.

January *American Journal of Public Health,* "An Equal Opportunity for Health," Governor Herbert H. Lehman.

"Ask The Coach"

ATHLETE'S FOOT: one of the many troubles about which boys ask the coach or physical education teacher. And the coach knows what to do—knows that odorless Alta-Co, diluted in 10 parts of water, is an excellent treatment—that any case which does not soon respond to treatment should have the doctor's attention.

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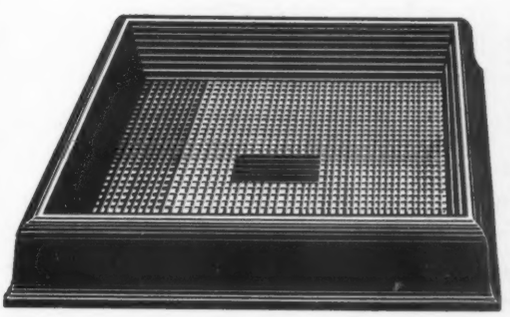

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Struthers Burt in the December *Forum and Century*—"As to the accredited upper class, if you wish to find out more about its secondary education, you can do no better than to read Sargent's Handbook of Private Schools; 21st edition. This is as necessary to the well-to-do parent as a marriage certificate . . . A mine of pregnant quotations."

Upton Sinclair, Pasadena, California—"I went through your book with great amusement. It seems to me one of the most picturesque things in America."

Margaret Mead, Bajoeng Gede, Bali, Netherlands Indies—"I can think of no better way of measuring the changes which have occurred in educational thought since leaving the United States, almost two years ago, than a glimpse into your Handbook."

A BRIEF SCHOOL GUIDE

Lists the more important Boarding Schools and Junior Colleges. 2d Edition, 1937, 132 pages, 700 schools, 14 maps, 97 illustrations, cover in color. Single copy 25 cents.

THE SUMMER CAMP GUIDE

A Guide to the 400 better private camps for boys and girls. 2d Edition, 1937, 96 pages, 8 maps, 82 illustrations, cover in color. Single copy 25 cents.

Write for Table of Contents

Porter Sargent, 11 Beacon Street, Boston, Mass.

January *Bulletin* (N.Y. Academy of Medicine), "The Nature of the Visual Process," Selig Hecht.

January *Camping Magazine*, "College Camping Courses," Charles B. Frasher; "The Educational Values of Camping," John W. Studebaker.

January *Athletic Journal*, "Concrete Tennis Courts, Ideal for Student Use."

December 25 *School and Society*, "Physical Education in Belgium," "The Teacher as a Politician," Carl Bode.

January *Recreation*, "The Elementary School of Tomorrow," N. L. Engelhardt; "Engineering Material and Human," V. K. Brown.

Recreation Leadership

(Continued from Page 99)

dren. With not too complicated material, some experience in leadership, and a natural interest in a type of activity in which there is spontaneity, the chances for success are good.

The practice leadership within their own group gives them experience for their work in organizations of the community. Each student decides what kind of work she will do. This gives her a chance to correlate the experience with her major interest in sociology, perhaps, or education. The girl who anticipates settlement work often chooses a social service center with crowded space, limited equipment, and underprivileged children. School playgrounds afford opportunity for the inexperienced play leader to try herself out with youngsters and in her contacts with the school staff. Students have worked with Girl Scouts, with Girl Reserves, and have organized their own groups. One year, a difficult and challenging opportunity was given some of the class when a group of relief workers who were acting as adult education teachers during the winter, came to them for lessons in games, in preparation for summer playground work. Graduates have found their contacts with community centers valuable experience for their positions in social service group work, kindergartens, clubs, museum classes, playgrounds, camps, and schools.

IN "Recreation Leadership" the student becomes aware of the true worth of the play spirit and of the drives which make life satisfying and rich. She studies not just facts of the recreation movement, but ideas which contribute toward a philosophy of living; she acquires not just tools to work with but some experience in the actual handling of them; not just theories about group living but some real contacts with community life.

Do we expect college students to learn not only facts and ideas about the world in which they are living but also how to get along with the people in it? How do we help them to develop leadership? In what ways do we give them encouragement while in college, to be active members of the community so that when they are graduated, they have made for themselves some opening wedge into community living? A course which combines the study of a vital present day movement with actual practice in leadership in social centers of the community does this.

It Has Been Done

(Continued from Page 80)

restricted from entering a class where he had no chance of succeeding. The decathlon was a voluntary affair in every way. Each boy scored himself in each event.

4. Expanding and Deepening Culture.— An important function of physical education is to familiarize children with many kinds of outdoor activities and indoor skills, and stimulate them to observe work with each other and with all forms of natural objects. The teacher-aims are to broaden and deepen culture so that children will increase in insight and derive more intellectual pleasure from physical activity and association with each other and with nature.

To accomplish these aims, three conditions should be met. First, a wide variety of physical activities should be offered to children. Second, the conditions of activity should be pleasant. And third, adult supervision should be informal, casual, and infrequent.

The Melrose High School physical education program has made an excellent beginning in accomplishing the first of these more ephemeral education aims. The activities sponsored already include the following:

Gymnastics	Track and field	Wrestling
Marching	Badminton	Golf
Games (group)	Horseshoes	Apparatus work
Basketball	Bowling	Skill tests
Tennis	Swimming	Refereeing games or sports
Hockey	Hiking	
Ring Hockey	Winter Sports	Judging and timing events
Volleyball	Rifle Club	
Softball	Softball	Leadership on apparatus
Football	Touch football	
Cross-country	Handball	Self measuring tests
	Boxing	

To make playing conditions most pleasant, several steps are necessary. First, in teams and all individual contests "initial equality between opponents" is necessary, and in team games great differences in ability between members of the same teams should be avoided. This is already being done in Melrose High School.

A second adjustment to insure pleasure to players is to use pupil officials and leave practically all details of management and coaching to players. In Melrose this is done in intramural sports. Eventually is should spread to interschool sports—for these players are, of all high school boys, best trained and most competent to direct their own play.

A third adjustment to insure pleasure to players is to permit them to choose, under guidance, the kind of sport and time for playing. The most effective and economical method of doing this is to excuse from compulsory attendance on all regular gymnasium or sport classes pupils with P.F.I.'s above, say, 120, who have also demonstrated their knowledge of sports and their capacity to direct their own games.

In Melrose High School this adjustment has not been made except that varsity athletes are excused from "gym" during the sports season, providing their P.F.I.'s are over 120.

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In the accomplishment of the third aim, it will be apparent at once that freeing superior pupils from attendance on compulsory gymnasium classes and permitting them to select their own time for and type of sports will almost necessarily render supervision informal and relatively infrequent. The ideal instruction is what Clark Hetherington calls the systematic-incidental method: at convenient or opportune times the teacher should confer with individuals about their choice of activities, their failures and successes, their desire for instruction, and give aid when and as it is needed.

By these methods every pupil in school may be given individual attention according to his needs. The pupil with low physical fitness is aided, by almost daily advice and instruction, to increase his powers so he may enjoy sports and be effective in study. The physically able pupil is given considerably less frequent guidance in sports practice and the conduct of games. The lower-middle group pupil is given regular supervision in the gymnasium and on the athletic field to develop his powers and interests.

Thus, Melrose is already providing for boys a nearly ideal program under a single capable teacher, and (now) part-time assistant. When the few further improvements noted above are made, the Melrose program for boys will merit duplication in senior high schools everywhere. Already two new major objectives have been adopted by the director as prime supplements to his present aims. These are the improvement of posture in motion and repose, and the development of courtesy. Plans for achieving these objectives are being drawn. Tests will need to be devised. In Melrose they not only hold all ground gained—they seek new worlds (objectives) to conquer.

L'Envoi

Let us begin our summary of the Melrose accomplishments by listing the helpful working conditions its physical director enjoyed. The School Committee is far-sighted and willing to support whatever promises to improve the health and social efficiency of pupils. The Superintendent of Schools is progressive and encouraging. The Principal is understanding and cooperative. The school building is new. The gymnasium is adequate in size. The playgrounds are near at hand. Pupils come from excellent home environments and from elementary schools where health education is unusually well planned. Parents are interested and open-minded.

True, this is a fortunate situation.

But it needed the director's initiative, enthusiasm, and hard work to produce the results we have described. They bear repeating: the great improvement in physical fitness of so many boys to "live and serve," the equalization of teams, the conduct of so many different activities, the individual corrective work, the elimination of prizes, the pupil-responsibility arranged for, the emphasis on the sport rather than on defeating opponents, the untiring statistical check-ups to discover whether and how far programs were really effective.

As old Hesiod observed, "Before the gates of excellence the gods have placed sweat. Long is the road thereto and rough and steep." Leonard William Clark, Physical Director of the Melrose High School has climbed this road to achieve his success.

The Alabama Coordinating Plan

(Continued from Page 98)

Miss Fleta McWhorter, Supervisor of School Health Education for Jefferson County; Honorable L. L. Mooneyham, Judge of Montgomery County Juvenile Court.

Dr. Jackson R. Sharman, Head of the Department of Physical and Health Education at the University of Alabama, gave a very interesting presentation of "The Place of Health, Physical Education, Recreation, and Safety Education in a Developing Curriculum." He stated that there are two methods of organizing the curriculum: the method of textbook teaching (the traditional method) and the method of organizing meaningful experiences and interests. He further stated that people desire health as a means of enjoying life and not as an end in itself. Dr. Sharman spoke of the necessity of making children aware of the importance of health and safety, if they are to enjoy a full, rich, happy life.

Excellent contributions were made to the program by the following heads of departments of physical and health education in teacher-training institutions: Dr. Ethel J. Saxman, University of Alabama; Miss Aldace Fitzwater, Livingston State Teachers College; Miss Mar-

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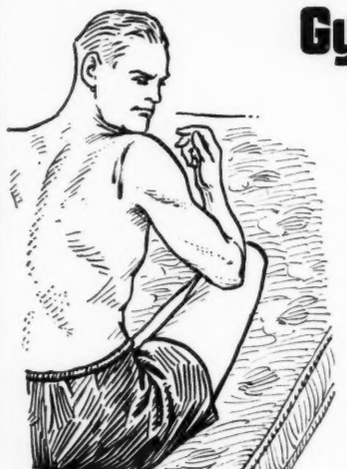

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garet McCall, Alabama College, Montevallo; Mr. Ernest B. Smith, Alabama Polytechnic Institute, Auburn; Miss Laureson Forrester, Troy State Teachers College; Miss Minnie Sellers, Jacksonville State Teachers College; Mr. Curran Farmer, President of the Alabama Physical Education Association, Troy State Teachers College; and Mr. Fuson Smith, State Teachers College, Livingston.

On Monday night a Christmas banquet was held, at which time Dr. McCloy spoke on "Character Education through Physical Education." Dr. McCloy pointed out that each individual has different strengths and weaknesses of character. For this reason, each child should be taught to develop character traits, which are personal to himself. The speaker further stated that little children have no conception of timeworn phrases used by educators in character instruction. They must first gain an abstract idea of character.

THE Tuesday morning session of the conference consisted of a follow-up of the fall district playday-conferences, which are designed to give aid at the beginning of the school year to teachers and a representative number of girls in the high schools of the state. The following hostesses were present: Dr. Ethel J. Saxman, Miss Minnie Sellers, Miss Fannie Stollenwerck, Miss Aldace Fitzwater, Miss Laureson Forrester, Miss Lorena Parrish, Mrs. Stella W. Garrison, Miss Lucy Lee Pruett, Miss Ruby Bateman, Miss Lucile Holman, and Miss Drucilla Williams. The following chairmen of women's committees of the Alabama High School Athletic Association were in attendance: Miss Bill Nichols, Miss Laura Coleman, and Mrs. J. R. Armstrong. Recommendations for playday-conferences for next year were made. From this roundtable discussion, the teachers were able to see what is being done in other sections of the State, to evaluate their own programs accordingly, and to gain a perspective for another year.

Balancing and Tumbling

(Continued from Page 103)

Another useful knack is the pushing or flicking of the mat away from the hands as the feet pass beyond the perpendicular stage. In order to attain an erect position, it is imperative that the performer follow through with his arms. (Ill. 6.)

Front Somersault (From a Running Start).—From a short run, take off from both feet with the hands above the head; spring as high as possible into the air; duck the head; tuck the body; bring the arms down vigorously; grasp the ankles to help the turn of the body in mid-air; keep tucked until completion of the trick; land on both feet. In advanced tumbling, height is gained by lifting strenuously with the arms and making the trick at maximum height.

Back Somersault (From Stand).—Lean backward slightly off balance; spring backward as high as possible into the air; swing the arms up and back vigorously; throw the head back forcefully; flex the thighs and grasp

the ankles with the hands and hold the tuck until the roll is complete, landing on the feet. The rapid sequence is arms, knees, and finally the head throw. The knees are lifted up to the hands; the arms are not brought down to the knees. The feet should land below the hand position. In other words, the hands determine where the feet shall land. For a spotter the hands are overhead; for a gainer the hands are in front; and for an ordinary back the hands are behind the head.

Back Handspring (Flip-Flop).—Place the feet about six inches apart; bend the knees slightly; settle back and lose the balance. Whip the shoulders, the head and the arms backward; push off vigorously with the feet (do not spring); force the hips forward; end in a momentary hand balance; snap the feet down to the starting position with the hands extended forward.

The author wishes to thank Joe Giallombardo and other members of the University of Illinois Gymkhana Troupe for their assistance in the preparation of this article.

Health is Your Greatest Wealth

(Continued from Page 87)

Heart and Blood Pressure Display.—This was a unique display by courtesy of Springfield College. Three mechanical devices illustrated the action of the heart, the relation of the emotions to blood pressure, and a simple test of the heart.

Eye Clinic (Business Men's Club).—The exhibit was arranged like an optometrist's office. Students from the college explained the workings of the various machines as well as the reflection and refraction of light, etc. Most spectators were interested in lenses and how they were made. Posters and anatomical charts of the eye surrounded this booth. Testing of eye charts was explained but no one was examined. Sources of posters: Better Vision Institute, Rockefeller Plaza, New York City; Eye Chart, Raphael's Ltd., London, England; machines obtained from Optometrists' Supply Co.

Teeth Clinic (Business Men's Club).—Cooperation between Dental Society and the Dominion Dental Company resulted in a nice display. This booth represented a dentist's office and dentists were on hand nightly to explain the machines, the X-ray pictures, the relation of foods to calcium growth, etc. Professional ethics forbade examinations. Posters on teeth obtained from: American Dental Association, Superior St., Chicago, Ill.; Dental Board of United Kingdom; National Child Welfare Association; 70 5th Ave., New York; National Live Stock and Meat Board, 407 Dearborn St., Chicago, Ill.

Posture Display.—This exhibit included posture charts, corrective exercise charts, posture chairs, etc. An attendant answered questions and explained the front wall, back wall, and window-pole methods of posture testing. Sources of Posters: Children's Bureau, U. S. Department of Labor; University of California; U. S. Government Printing Office; Metropolitan Life Insurance Co. (Booklets); American Seating Co., Grand Rapids, Mich.; The Wom-

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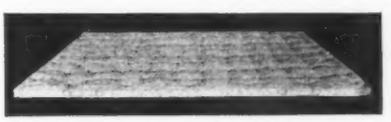

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ans Press, 600 Lexington Ave., New York City; Health Spot Shoes; Cantilever Co.; Y.W.C.A., 610 Lexington Ave., New York City; JOURNAL OF HEALTH AND PHYSICAL EDUCATION, Ann Arbor, Mich.; Canadian Red Cross Society. In addition to the above posters, a local artist sketched half a dozen drawings, showing corrective exercises.

In addition to all of the above, the Gates-Strang Health tests were used by the Boys' Department and the Young Men's Division in order to invoke a desire for continued study in health. Each night the Y's Men's Club provided health movies in the lobby. Four varied reels were shown at a time. Sources for this material are too numerous to need mentioning here.

In case the accumulation of facts has made this project seem an expensive one, we might say that outside of the printed Health Bulletin, the total cost was not more than $55.00, which included $17.00 insurance.

Individual Structural Differences

(Continued from Page 93)

with the long axis of the lower leg will be distinctly misleading to the observer. Then too, there are those individuals whose feet are apparently strong, their functional alignment good, and yet whose scaphoid shows a disconcerting prominence, usually limited to this bone alone. The individual when questioned usually states that it has "always been that way." Of course, that is no absolute evidence of its congenital nature. However, I have been able to find nothing in the literature to explain this condition. Of course, there is the possibility of an accessory scaphoid, which is mentioned by anatomists and orthopedists as a relatively infrequent anomaly. At the same time there is nothing to lead us to believe that such an adventitious bone should necessarily be a prominent one in an otherwise normal foot.

I do not expect all observations made in this paper to pass unchallenged. Its main thesis, however—a plea for consideration of the individual, especially that individual who happens to be slightly different from the average—cannot be denied. Though generally accepted in theory, it needs more conscientious application in practice.

Dance Adventures Abroad

(Continued from Page 76)

of the English classes and had also accompanied Mary Wigman on her American tours. The girls in our group had a two-hour lesson full of interest and inspiration. Much has been written in praise of the Wigman Schule and justly so. My judgment was formed from watching the lessons taught by Gretl Curth. Such logical movements, such progression and so much accomplished in a short time. The girls got copies of two books about Mary Wigman, *Das Mary Wigman-Werk* by Rudolf Bach, and *Mary Wigman: Deutsche Tanzkunst*.

Burg in the Spreewald, the home of the "Wends," is a wooded marshy district intersected by a network of two hundred branches of the Spree river. We arrived late and stayed at the Landhaus Winzer, an oldish inn totally devoid of modern conveniences. Early the next morning we walked single-file along a blossomy path to the village. We were astonished to see mobs of people filling the streets. When the peasants finally came out we got, between tall shoulders and bobbing heads, a fairly good glimpse of the costumes. They wore the typical German dress—full, heavy skirt with wide bordered hem, white short-sleeved bodice, satin corset, and shoulder kerchief. The headdress, very large and most unusual, was made of printed or embroidered material. A piece about a yard square was folded to make a triangle and placed over the head on a high frame so that the center point hung down the back.

Later we went out to the edge of the village to see a peasant wedding. The scene was set near a bridge on one of the waterways where a small log cabin had been built. First eight peasant girls in their fantastic headdresses came out with their spinning wheels and sang as they spun. Then came young men who sang and danced. Soon the bride and groom were seen down the river in a barge, and the entire bridal party made a very spectacular entrance over the rustic bridge. The bride's costume was similar to the others except that she wore around her neck an enormous white muslin ruff which was fastened under the chin by a large bow of figured ribbon. The head gear was of lace—very high and oval shaped. The short ceremony was followed by more dances.

Berlin was preparing for a mammoth celebration commemorating seven hundred years of its history. Dorothee Günther of the "Günther-Schule," Private Schulen Für Gymnastik, Rhythmik und Künstlerischen Tanz, obtained for us special permission to attend the final rehearsal in the immense Olympic Stadium. It was a heroic undertaking. In the nine tableaux there were two hundred thousand participants, depicting historic scenes of Germany from the 13th century to today.

The next day we visited the Heinrich Medau School of Rhythmic Gymnastics in Schoneberg-Innsbrucker Strasse. Hella Thommen, one of the seven members of the staff, taught the lesson with Indian clubs, balls, and hoops, and did all of her own accompanying. This school offers a two-year course in Gymnastics—Expressionistic Gymnastics; gymnastics with balls, hoops, and tambourines; gymnastical improvisation and elaboration; and also a complete course in music, education, art, science, and sports such as riding, skiing, and skating. The school also has a performance group which gives concerts on the continent.

The outstanding event in Berlin and I might say of the entire summer was the opportunity to visit Dr. Artur Michel's apartment in Charlottenburg and see his unusual collection of books, engravings, and etchings on the dance. He said he was now writing a *History of Dancing*. When we asked to see some of his antique books the first one he brought out was *Tantzteufel* (*Dancing Devil*) published in 1567! A special section in his library contains a very valuable collection of ballet librettos of the 18th and 19th centuries. His oldest

engravings are wood engravings of the 15th century. His collection covers three sections—theater dance, ballroom dance, and folk dance. The greatest number however are theater dance pieces. In his collection, Dr. Michel had an album which contained small photographs of many of his etchings and engravings and also photographs of almost all the famous dancers of Europe. The pictures were arranged in chronological order so that it made a sort of history of dancers from the 15th century to the present day. He called it "An Evolution of the Dance." It was a most valuable and impressive collection.

The minute we arrived in Stockholm our host announced that he had obtained permission for us to watch the Royal Swedish Opera ballet practice, and he added very impressively, "You are the very first 'foreigners' in fifty years who have been granted this privilege." The room was long with bars on three sides and mirrors on the fourth. The strange part of the room, however, was that the floor slanted considerably down to the mirrored end. This was necessary as most of the older European theaters were built with a slanting stage. One of the most talented girls in our group asked the ballet mistress, Dalborg Franchi, if she might practise with the Swedish ballet. Miss Franchi graciously assented. The class did a great deal of bar work, being very strict about a perfect fifth position for all exercises. Then they practised steps and turns, and later many long and difficult combinations. It was most interesting to watch the turns on the sloping floor—they seemed an almost impossible feat. The lesson was very similar to the work we see over here.

That evening we went out to "Skansen," a unique outdoor museum called "Sweden in a Nutshell." In this beautiful landscape, with the Swedish capital at your feet, you can see how they lived and dwelt in old Sweden. There are many peasant buildings, each in a different character after the province it represents. There on an outdoor platform we saw many Swedish folk dances—Schottis, Trekarlspolska, Vingåkerdans, Skrålåt, Dockedans, Västgötapolska, Väva vadmal, Halling, Snurrebock, Fjällnäspolska, Gotlandskadrilj, Jössehäradspolska, Skobodans, and Hambo. The dancers were dressed in Dalcarlian costumes—the girls wore bodices of gaily colored velvet, skirts with what appears to be a gaily striped apron but which is in reality a strip of multicolored fabric sewn into the front, and upright conical bonnets with little red balls down the back. The men's clerical-cut blue coats reach to the knees; their breeches of yellow buckskin are worn with blue and red hose with red tassels at the knees.

The next day we visited Lalla Cassel's school of dancing. We were told she was considered one of the best teachers in Sweden. Her classes were held in a most elaborate modernistic clubhouse for men. The lesson was quite different from any we had seen. Miss Cassel said her method was a combination of gymnastics and the modern dance. Miss Cassel, young and beautiful with a most captivating personality, does the solo work with her group. Their national Swedish dances were, of course, the most outstanding. As we were leaving Miss Cassel gave me a copy of her book *En Kvart Varje Dag*. It con-

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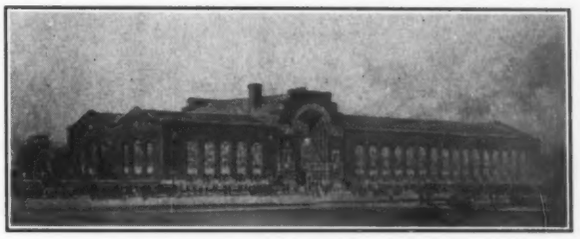

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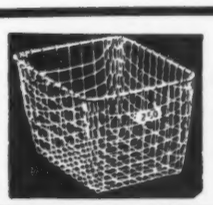

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tains many exercises, all illustrated, showing her method of combining the dance with gymnastics.

All in all, our tour has yielded a fine harvest of ideas on what is being done in European dance, both in the simple, remote villages and in the most advanced studios. Around Zagreb we had found the dance in its natural nursery. In the library of Dr. Michel we had found its history in pen and brush.

Care of Gymnasium Floors

(Continued from Page 95)

clean, and pick up the dirt. Mineral oil compounds should be avoided as they leave an oil film on the floor, causing a slippery condition.

Bloxonend Treatment and Maintenance

Bloxonend flooring, which is widely used in gymnasiums and school shops, is an end grain flooring material made of selected southern pine. It has been installed in more than five hundred schools and universities, including Princeton, Harvard, Ohio State, and Louisiana State. It is rather difficult to make any general recommendations as to treatment and maintenance because some eleven or twelve years' experience in the field has shown that practically every job must be considered individually.

There are being marketed at this time a large number of floor finishes especially recommended for school use. Although sold under various trade names, most of them can be classified as "mopping varnishes" or "oil base" floor finishing products. While there have been apparent failures of these finishes in connection with all types of flooring, it has been observed that the failures resulted from improper maintenance or other conditions over which the manufacturers of the flooring and the floor finishing material have had no control.

As an example of this, let us quote one representative instance: A high school in an eastern city is located in one of the poorer residential districts. For the benefit of the students and the convenience of the community which often utilizes the building, the gymnasium was purposely placed on the ground floor and has direct entrances from the street and playground. Due to the poverty of the parents, the School Board has not considered it advisable to inaugurate the policy of making it compulsory for those using the gymnasium to be equipped with gym shoes, and as a consequence, street and playground dirt is carried on to the floor, making it practically impossible to maintain the floor in a clean, attractive condition.

The usual recommendations for the treatment and maintenance of Bloxonend gymnasium floors are as follows: The flooring should be treated originally with one of the standard "mopping varnishes" or "oil base" treatments. If the gymnasium is restricted to strictly gymnasium activities by those equipped with special gym shoes, the floor can be properly maintained by going over it every day with a mop moistened with kerosene or thin floor oil. If dirt has been permitted to accumulate, the floor should be scrubbed with warm water and a non-lye soap applied with one of the standard scrubbing machines. Soap and water is not injurious to a wood floor if the water is applied sparingly and wiped up immediately. When soap and water will not accomplish the desired purpose, the floor should be cleaned with some such compound as "Toluol." If this product is not available to the customer, high test gasoline usually serves as well. Naturally, there is a certain fire risk involved in the use of either of these latter two materials, but before attempting to use them the room should be thoroughly ventilated and kept ventilated.

Treatment of the Gymnasium Floor for Dancing

With the trend in physical education which extends the program to include social activities and dancing, there has appeared the problem of preparing the floor for dancing and yet not crippling it for regular use. Two main plans are followed. The first is to use borax powder. This serves very nicely to produce a glazed surface and is easily removed afterward but has the objectionable feature of coating the shoes and clothing of the dancers with a fine white dust. Sometimes this is dense enough to prove irritating to the dancers' respiratory tracts, causing sneezing and coughing.

A second method is the use of a liquid wax that can be scrubbed off. This is expensive but the wax produces a splendid surface. After being scrubbed on, it is smoothed out with a brush mop. When it has dried sufficiently, in the course of a few hours, powdered wax is sprinkled over the surface to give an extra finish. Following the dance this wax may be scrubbed off with warm water and if the water is quickly mopped up no harm will be done to the floor. Wax flakes are less expensive and as satisfactory for occasional use.

Dark Wood Preserver

In those few instances where a floor is so lighted that it is desirable to have a dark finish, the following preservative is very satisfactory:

Linseed Oil	4½ gallons
Drier	1 pint
Turpentine	½ gallon
Raw Sienna	1 pound
Burnt Umber	½ pound

This preparation gives a dark brown coating.

Conclusion

Progress in the field of floor finishing has been so rapid that even as we write we are aware that there are many tried innovations not included. The attempt has been to deal rather generally with the problem and to provoke

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from those who have later and better information something that will be of help to the profession. The manufacturers of floor finishes have been doing their part and grateful acknowledgment is made to the many who have supplied information on this subject.

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Units of Study on Milk

(Continued from Page 84)

pounds of irradiated evaporated milk consumed per day in the United States? How much raw milk is needed annually?

3. About 800,000,000 pounds of irradiated evaporated milk are consumed each year. A freight car holds approximately 40,000 pounds of irradiated evaporated milk. If the entire year's supply of irradiated evaporated milk were shipped at one time, how many freight cars would there be in the train?

4. Other arithmetic problems will suggest themselves as the project progresses, among them, computing the data for the weight charts of the white rats, and a simple cost analysis of food supplies for the school lunch.

Health.—1. All information obtained relating to the nutritive value of irradiated evaporated milk can be connected with the regular health instruction. The white rat experiment will constitute an effective piece of nutrition teaching.

Some Questions That May Be Answered from This Study

List on the board these problems and unanswered questions:

a) What are the uses of irradiated evaporated milk?

b) How much irradiated evaporated milk is consumed in the United States and what is its importance in the nation's food supply?

c) How is raw cow's milk transformed into irradiated evaporated milk?

d) Where are the irradiated evaporated milk plants located and how is the milk handled from the plant to the grocery store?

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Irradiated Evaporated Milk—Steenbock Process. (Wisconsin Alumni Research Foundation.)

Irradiated Evaporated Milk—A Pictorial Chart.

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Beulah Gillaspie and Millicent Atkin, "More Milk In Your Meals."

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With the exception of the texts by Rose and the White House Conference, all materials, including reprints of periodical articles, can be obtained free from the Irradiated Evaporated Milk Institute, 307 North Michigan Avenue, Chicago. Additional data can be secured from the United States Department of Agriculture, and the United States Children's Bureau, Washington, D. C., and from the Wisconsin Alumni Research Foundation, Madison, Wisconsin.

Liberal Cultural Values

(Continued from Page 71)

Perspective.—Physical education alone will not give a liberal cultural development. It may, however, provide opportunities for one to obtain some of the attributes of culture. It, as any other group of activities, must be a part of a pattern of activity experiences. To develop perspective it is necessary that one have the abilities of critical analysis, both of observed phenomena and one's own experiences and feeling. This critical analysis must be built upon the ability to make correct choices or judgments and to give proper values to one's own choices and those of others in order that there be tolerance.

Physical education activities provide opportunities for the development of critical analysis, and through the demands which they make of checking one's own achievement against that of others, one's own previous performance, or certain standards of performance such as the time for the 100-yard dash. In the group co-acting activities of basketball, prisoner's base, etc., the critical analysis is immediate to the situation. An inefficient act is immediately capitalized by the opponents, recognized by one's team mates, and consequently impressed upon the consciousness of the player. There is then developed both a critical evaluation of the self as an acting member of the group, of the other individuals, and of the group as a whole. It should be noted that most of such evaluations concern the skills themselves and other personalities.

The ability to make adequate judgments concerning one's own ability, and the ability of others, is constantly demanded. The judgments are not limited to skill itself, but concern the whole personality. As one plays with a person in physical education activities, one makes judgments concerning the total situation, the skills of one's partner or opponent and the setting of that skill—his personality. Whether *tolerance* will be developed cannot be assumed by the activity itself. We know that tolerance can only mature as the individual evaluates his own performance in terms of others. Because he must so evaluate does not ensure a correct evaluation—to see the other fellow's point of view must come through the leader's guidance of the importance which the player gives to his own decision and the nearest which is developed in the other fellow. Most of the attributes of culture can come only through the careful direction by a leader. The physical education activities provide opportunities for developing tolerance; they do not ensure that it will be developed.

Self-Realization.—Self-realization will come as one develops self-direction—the ability to take responsibility for one's own acts and to direct those acts by self-accepted standards of behavior. The physical education activities have sometimes been organized and led so that the opportunities for self-direction have been largely eliminated. They are leader-dominated rather than leader-guided. Physical education activities by their nature, however, demand that each player take responsibility for his own actions; and further, his actions not only affect himself but affect and are reflected in the other members of the playing group. The civilization in which we live provides all too often the means of dodging, or at least delaying the responsibility for one's act. This is not true in physical education where one's team mates know of it and one's opponents take advantage of it.

Self-realization must be based upon a true self-evaluation—it must have proper perspective, and this perspective must come from a careful weighing of one's self-feeling and the manifested feeling about one's self made by others. Physical education activities are ideal laboratories for such weighings. A characteristic of physical education is that it is amateur—the reason one likes to engage in it is the "kick" one gets out of the doing. The utilitarian attitude of the industrial revolution has crept into all aspects of our lives and we tend to feel that the most worth-while activities are those which we do for some ulterior purpose, such as "grow up like father," "go to college," "make a living," or "obtain a college grade." Activities which are performed solely for such ends are not cultural, they are not conducive to the struggle demanded to achieve excellence. The values of a cultural education must be in doing rather than the end gained. Physical education has been considered to be of less value because "it is play." We justify it on its carry-over values and we stigmatize it as extra-curricular. Physical education if stripped of its other values will at least be cultural to the extent that its drive is intrinsic.

Integration.—Culture is more than areas of knowledge, appreciation, or expression. It is the picture of the individual as a whole. It is the antithesis of the development of faculties, and axiomatic of the development of a

wholesome, integrated personality. Integration is achieved through "attentive coordinated activities," activities which demand that one give undivided attention. Any activity if it becomes sufficiently absorbing will do this. Some activities, however, by their nature, demand this integration. Physical education activities of the play type demand this undivided attention; they are all-absorbing activities. One expresses one's self through a whole personality rather than through a set of skills.

Obviously physical education activities alone will not ensure a culturally integrated personality. They do, however, contain the elements which are essential to such a development. Further, it is easier to obtain such integration in them than in activities in which one has to create satisfaction through artificial means.

Culture today involves the ability to live effectively in a social world. The personality impressions and expressions which come through the social relationships in many physical education activities provide an opportunity for the humanistic aspect of cultural education. They are laboratory experiences in primary social relationships and provide opportunities for the cultural expressions of the self as a member of a co-acting group.

Summary

The curricula or experience patterns of a liberal cultural education will vary. Individuals will find their best pattern of depth and breadth for the expression of their own capacities in the present civilization. Physical education has its place as one unit of these patterns. It cannot produce a cultured person, neither can any other activity. Plato recognized this when he wrote that the mere athlete becomes too much of a savage, and the mere musician too melted and softened beyond what is good for him. The two, he stated, should therefore be blended in right proportions.

Physical education has not been considered by school men as a cultural subject because of an unfortunate traditional inheritance of a comparatively narrow concept of physical education and of culture.

Culture can no longer be considered as merely man's objective achievement in permanent form; it involves his ability to live as a developing individual, capable of expressing himself in harmoniously constructive relationship with others. He must be excellent in something and liberally attuned to excellence in others. He must be an idealist who is tolerant of other ideals, a scientist seeing his own understanding in true perspective. A liberal cultural education can never limit itself to information giving. It must provide laboratories for trying out. It cannot afford to be merely traditional, it must see culture in the setting of the society of which it is a part. It must educate for personality rather than facts. It must be expressive rather than impressive, formational rather than informational, guiding rather than propagandizing, idealizing rather than dogmatizing. It must develop self-direction rather than regimentation, must be personality conscious rather than subject conscious. It must produce cultured gentlemen and ladies rather than students.

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Personal Hygiene Applied. Jesse Feiring Williams, M.D. (6th ed.; Philadelphia: W. B. Saunders Company, 1937), 627 pages, $2.50.

"Modern science is the marvel of our age," starts the section on "The Way of Modern Science." It is along this line that the author has revised his A-1 textbook. Writing in his usual flowing, distinctive style, Williams has brought up to date his original work in personal hygiene. "The increased interest in health today is helping to overcome some of the environmental handicaps. . . . The interest in posture, the era of wholesome dress, the development of serums, the establishment of isolation measures, the play and recreation movement, the crusade against sedentary life, the agitation for coarse, wholesome food, the open air and camping movement, the keen interest in and study of social hygiene, the emphasis on the importance of physical work, the recognition of athletics for men and women both, the development of instruction in mental hygiene—all attest to the appreciation of the problems presented a civilized life."

Man, Bread, and Destiny. C. C. and S. M. Furnas. (Baltimore: Williams and Wilkins Company, 1937), 364 pages, $3.00.

Man's diet through the ages and why's and wherefore's of "false fastidiousness" which have left such an imprint of fads, superstitions, and common misinformation in the "feeding of man" are thoroughly discussed in the happy style of the Furnas's. The easy readability of this study makes it one of great help in health instruction groups. Students and teachers may profit greatly by reading it.

High School Course of Study. (Physical Education). Julia Post, Committee Chairman. (Columbia, South Carolina: State Superintendent of Education, 1937), 160 pages.

A curriculum outline for the high schools of South Carolina. Much practical material collected into a monograph for use in a particular situation. The monograph is well done and should serve as an excellent guide for the high school people.

Games. (Revised and Enlarged Edition). Jessie H. Bancroft. (New York: The Macmillan Company, 1937), 685 pages, $4.00.

A revised and enlarged version of *the* original book of games. Games for all types of situations have been included, as well as some of the athletic type games such as hockey, soccer, and track and field events. The index is unique in that not only does it give page numbers, but also shows to which grades and age periods the various games are best suited. An attractive book, complete, and well illustrated.

The Problems of Education. C. C. Crawford, Louis P. Thorpe, and Fay Adams. (Los Angeles: Southern California School Book Depository, 1937), 240 pages, $2.50.

An introductory textbook for courses in education which gives many suggestions for discussions, debates, student reports, and which should stimulate thinking and expression in teacher-training classes.

Motion Pictures in Education. Edgar Dale, Fannie W. Dunn, Charles F. Hoban, Jr., and Etta Schneider. (Committee on motion pictures in education, American Council on Education) (New York: H. W. Wilson Conmpany, 1937), 472 pages, $2.50.

In this enormous summary of the literature on motion pictures much material is presented on the research projects already performed in visual aids to instruction. Physical education, health education, safety, and recreation have so far contributed little to the experimental field of motion pictures. Consequently there is little mention of them in this study. It presents a challege to the research group in the department of school health and physical education to engage in experimental studies of the instructional work which has already been done in this field.

Bulletin of the Health Organization. League of Nations. VI: 3 (June 1937). (American Distributors, Columbia University Press, New York), 65c

Includes reports on popular nutrition in Chile, and the milk problem throughout the world.

High School Teachers' Methods. Charles Elmer Holley. (Champaign, Illinois: The Garrad Press, 1937), 514 pages, $3.00.

The entire scope of methods employed, or employable by high school teachers, is covered in this volume.

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